ORGANIZATIONAL, INTERMEDIATE, AND DEPOT MAINTENANCE

DESCRIPTION AND PRINCIPLES OF OPERATION

NB-8 PERSONNEL PARACHUTE ASSEMBLY

PART NO. 569AS100-5, 569AS100-6, 569AS100-7 and 569AS100-8

List of Effective Work Package Pages

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None

1. DESCRIPTION.

2. GENERAL. The NB-8 Personnel Parachute Assembly is a back-type parachute, consisting of a 28-ft. diameter, flat, multicolored, (white, olive green, international orange and sand shade) nylon canopy with 28 gores. Each alternate gore has been modified with water deflation pockets. Canopy is packed in a container and secured to the aircrew by a harness assembly (Figure 1).

3. CONFIGURATIONS. Four different configurations of the NB-8 assembly may be used in service. The difference is in the size of harness, NB-8 R (regular) or NB-8 O (oversize) and the addition or absence of an Automatic Parachute Ripcord Release. Refer to Illustrated Parts Breakdown (WP 013 04) for exact configuration requirements. When circumstances dictate, an aircrew may be required to wear cold weather gear which may restrict use of existing length of chest adjusting strap due to excessive bulk. To preclude this condition a chest strap extender is authorized for use. For fabrication of the chest strap extender refer to (WP 013 03). Four configurations of the NB-8 assembly may also be used with a seat cushion and standard soft pack (SSP) or with the SP-1A seat pan assembly and SSP depending on aircraft application. The SSP is one of several types of packaged LR-1 life raft assemblies (NAVAIR 13-1-6.3-1).

4. SUBASSEMBLY CONFIGURATIONS. Subassemblies listed below and shown in (Figure 2) make up the various configurations of the NB-8 assembly. Refer to (WP 013 04) for detailed information on subassemblies.

Pilot Parachute Assembly

Pilot Parachute Connector Strap

Canopy Assembly

Harness Assembly

Back Pad

Lanyard Assembly

Ripcord Assembly

Automatic Ripcord Release Assembly

Container Assembly

5. PRINCIPLES OF OPERATION.

6. MANUAL OPERATION. After emergency bailout, the following operations take place:

a. Manually pulling the ripcord handle removes the ripcord pins (overriding the ripcord release if installed) from the container locking cones, permitting grommets and locking cones to separate.

b. The container spring opening assemblies pull the side flaps apart allowing the pilot parachute to spring from the container and inflate.

c. The aircrew falling away from the inflated pilot parachute causes the canopy to be extracted from the container followed by the suspension lines. The canopy begins to inflate during this operation.

d. The connector link tacking breaks as load is applied. The risers are then pulled from the container, the canopy inflates. This permits the aircrew to descend suspended in the harness.

e. By manually actuating the four-line release system the aircrew may reduce oscillation and maneuver parachute to a less hazardous landing site.

f. Upon landing, the aircrew releases the canopy by actuation of the harness quick fit ejector snaps.

7. AUTOMATIC OPERATION ABOVE PRE-SET ACTIVATION ALTITUDE. After emergency bailout the following functions take place, assuming the aircrew does not manually deploy the parachute.

a. The ripcord release arming pin is withdrawn as aircrew exits the aircraft. The release aneroid mechanism locks the firing pin/hammer preventing the release from firing.

b. As the aircrew falls, increasing air pressure causes the release aneroid to contact.

c. Upon passing through the pre-set altitude, the aneroid contracts and removes the sear from the firing hammer lock.

d. The release firing pin/hammer strikes the cartridge.

e. The release cartridge fires after a preset time delay of 2 seconds.

f. The release piston is forced forward in the barrel, pulling the power cable which is attached to top ripcord pin.

g. The ripcord pins are pulled by action of the release power cable, permitting container gromments and locking cones to seperate.

h. The container spring opening assemblies pull the side flaps apart, allowing the pilot parachute to spring from container and inflate with air.

i. The aircrew falling away from the pilot parachute causes the canopy to be extracted from the container followed by the suspension lines. The canopy begins to inflate with air during this operation.

j. The connector link tacking breaks as load is applied. The lift webs are then pulled from the container, the canopy inflates. This permits the aircrew to descend suspended in the harness.

k. By manually actuating the four-line release system, the aircrew may reduce oscillation and maneuver to a less hazardous landing site.

l. Upon landing, the aircrew releases harness by actuation of the harness quick fit ejector snaps.

8. AUTOMATIC OPERATION BELOW PRE-SET ACTIVATION ALTITUDE. After emergency bailout the following functions take place, assuming the aircrew does not manually deploy the parachute.

a. The ripcord release arming pin is withdrawn as the aircrew exits the aircraft, automatically releasing the firing pin/hammer.

b. The firing pin/hammer strikes the cartridge.

c. The release cartridge fires after a preset time delay of 2 seconds.

d. The release piston is forced forward in the barrel, pulling the power cable which is attached to the top ripcord pin.

e. The ripcord pins are pulled by the action of the release power cable, permitting the container gromments and locking cones to seperate.

f. The container spring opening assemblies pull the side flaps apart, allowing the pilot parachute to spring from the container and inflate with air.

g. The aircrew falling away from the pilot parachute causes the canopy to be extracted from the container, followed by the suspension lines. The canopy begins to inflate with air during this operation.

h. he connector link tacking breaks as load is applied. The lift webs are then pulled from container, the canopy inflates. This permits the aircrew to descend suspended in the harness.

i. By manually actuating the four-line release system, the aircrew may reduce oscillation and maneuver to a less hazardous landing site.

j. Upon landing, the aircrew releases harness by actuation of the harness quick fit ejector snaps.

9. REPACK SCHEDULE.

a. Scheduled repack cycle is 1460 days for the P-3, C-130, and C-2 aircraft.

b. Scheduled repack cycle is 840 days for the T-34 aircraft.

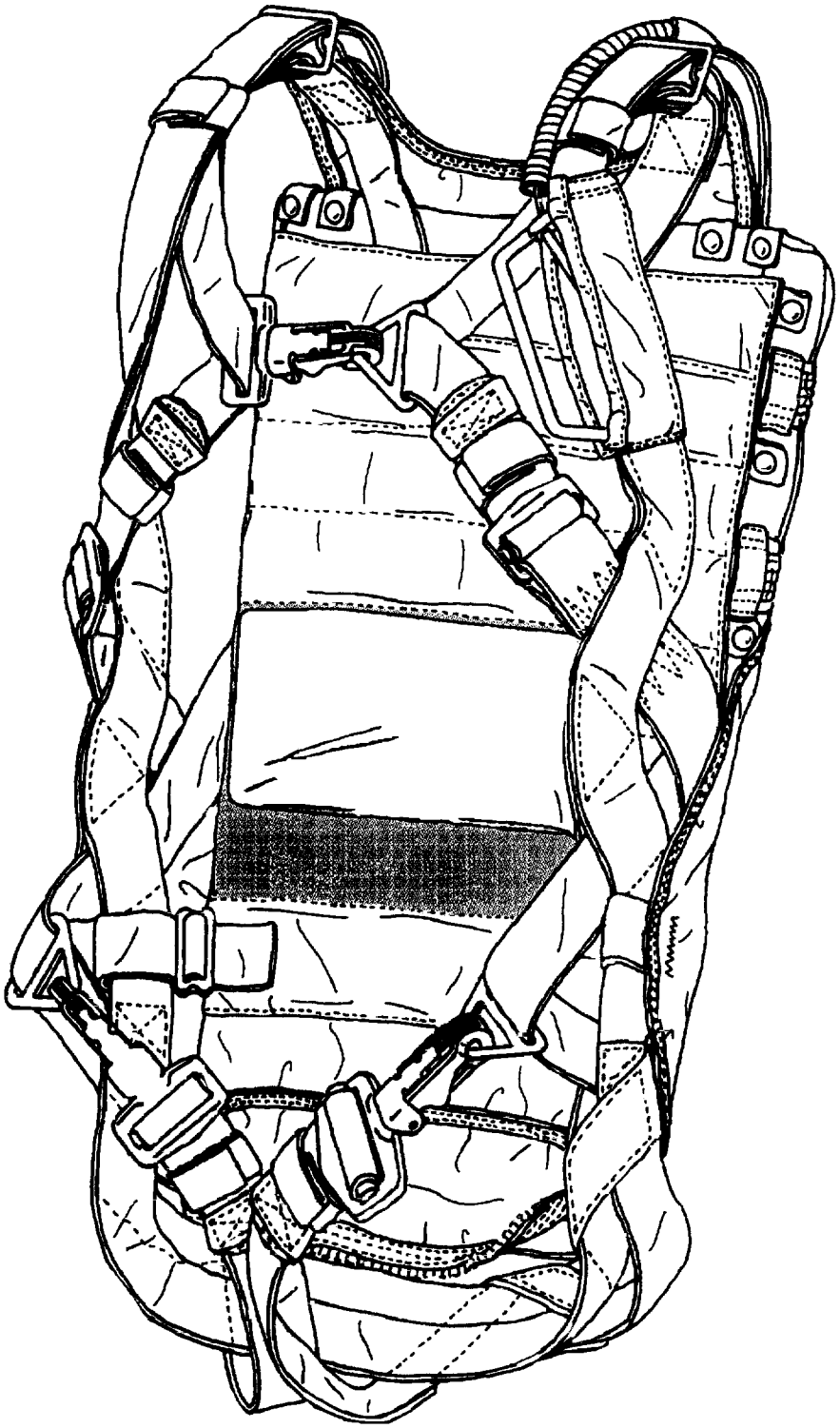

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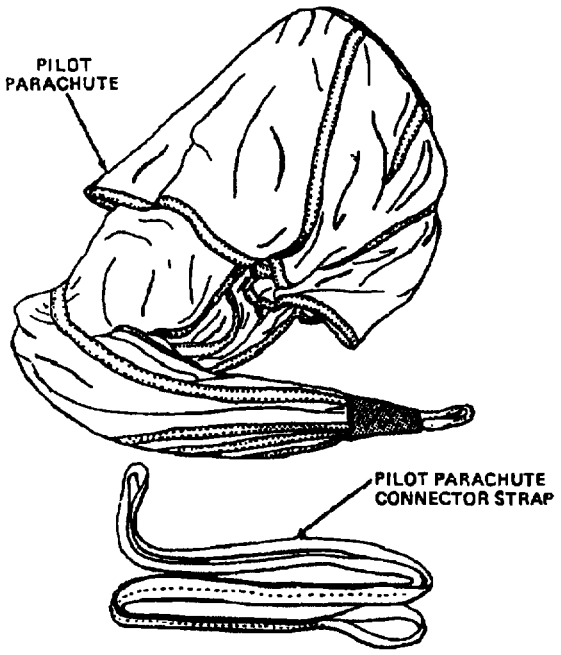
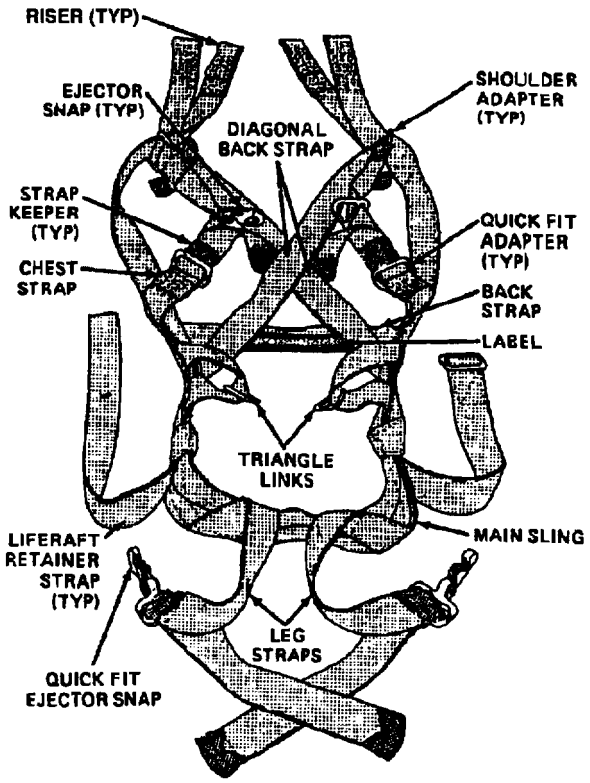
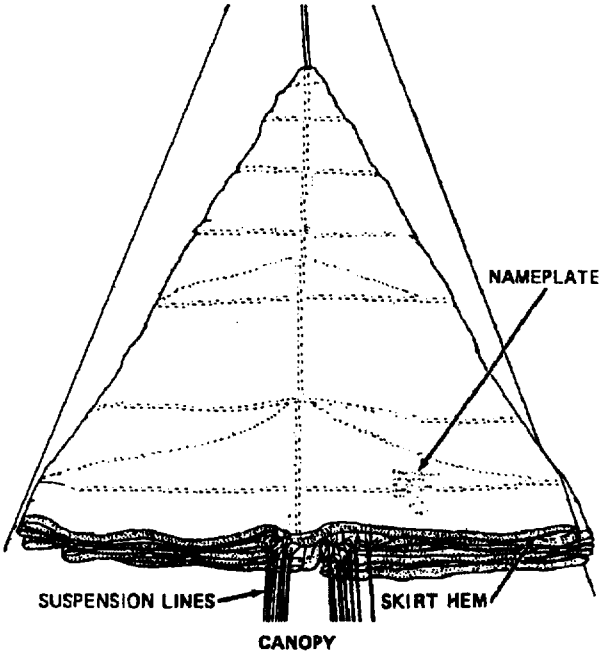
Figure 1. Personnel Parachute Assembly, NB-8



Pilot Parachute and Connector Strap Assemblies



Harness Assembly



Canopy

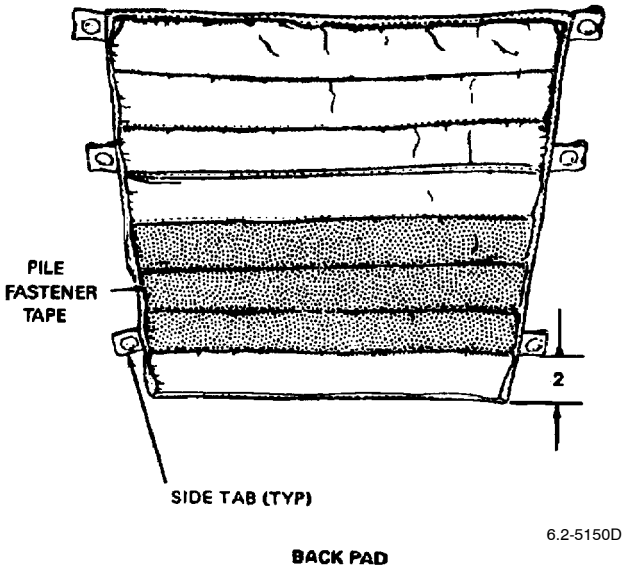
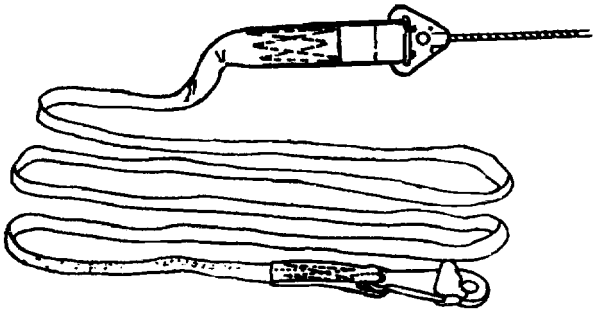


Figure 2. Subassemblies, NB-8 (Sheet 1 of 4)



LANYARD ASSEMBLY

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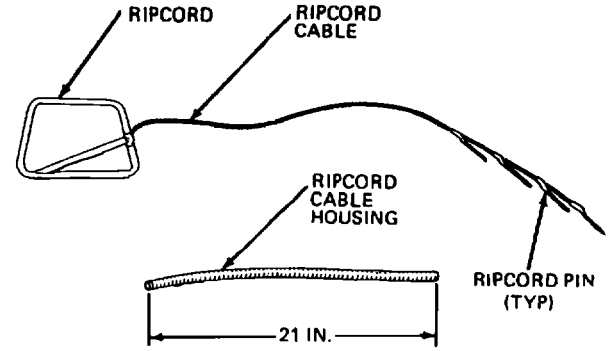

RIPCORD ASSEMBLY

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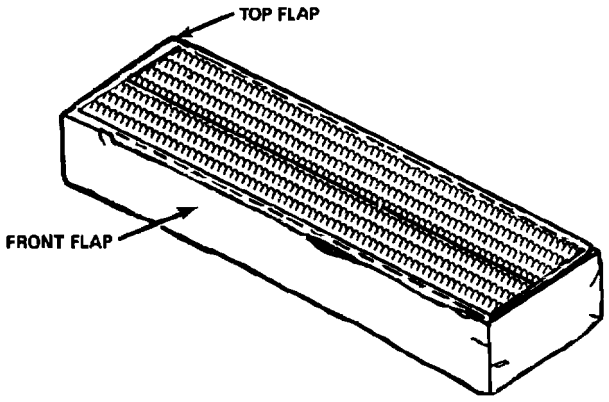

LUMBAR PAD

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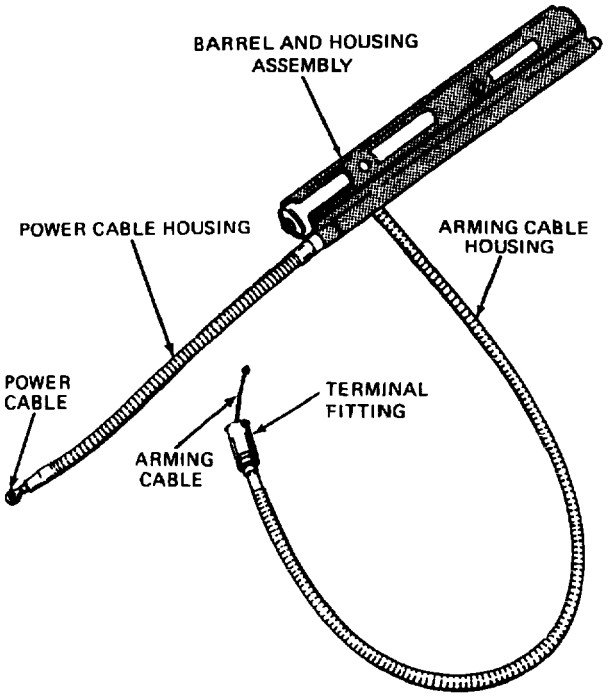

AUTOMATIC PARACHUTE RIPCORD RELEASE

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Figure 2. Subassemblies, NB-8 (Sheet 2 of 4)

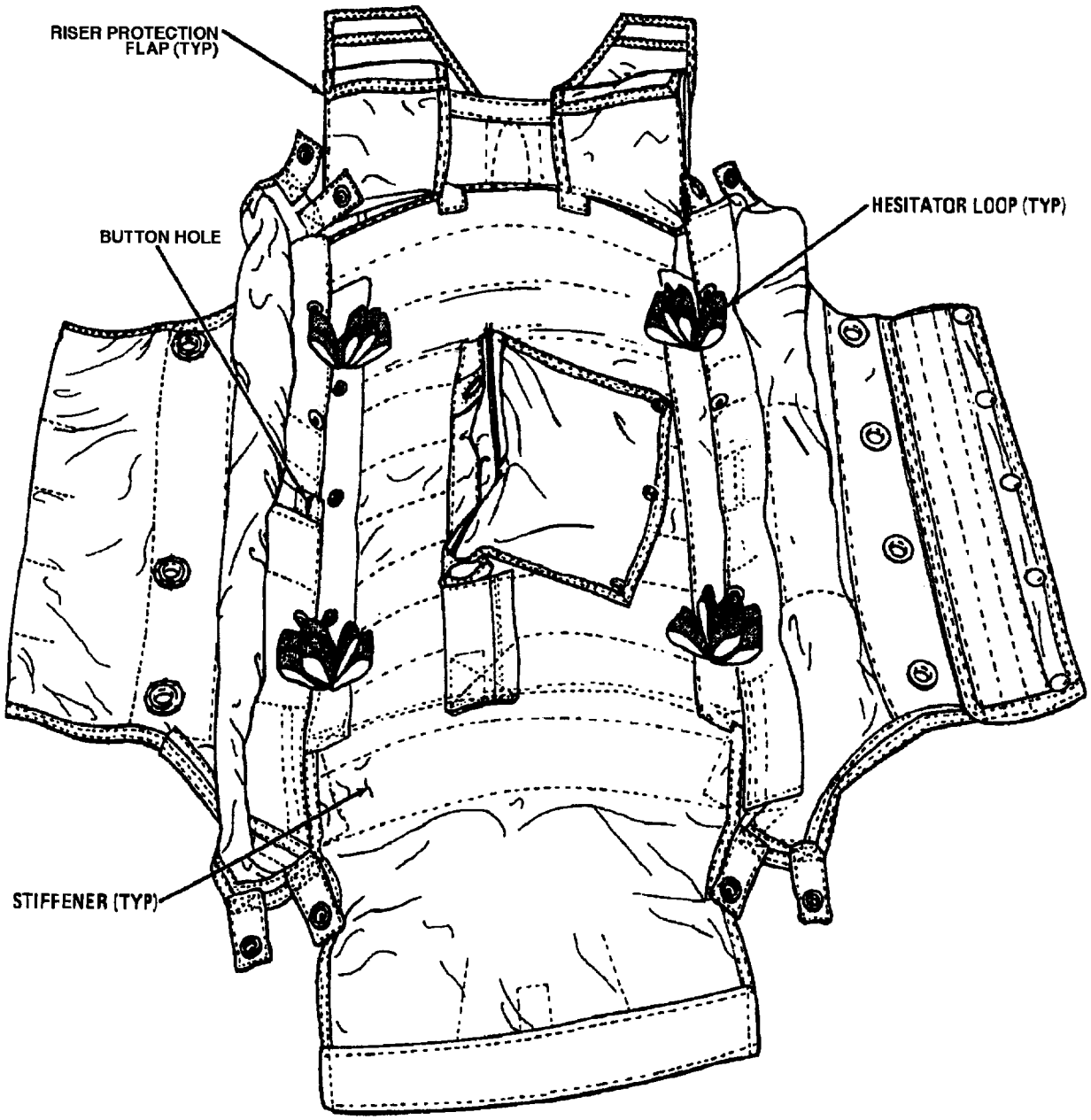

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Figure 2. Subassemblies, NB-8 (Sheet 3 of 4)

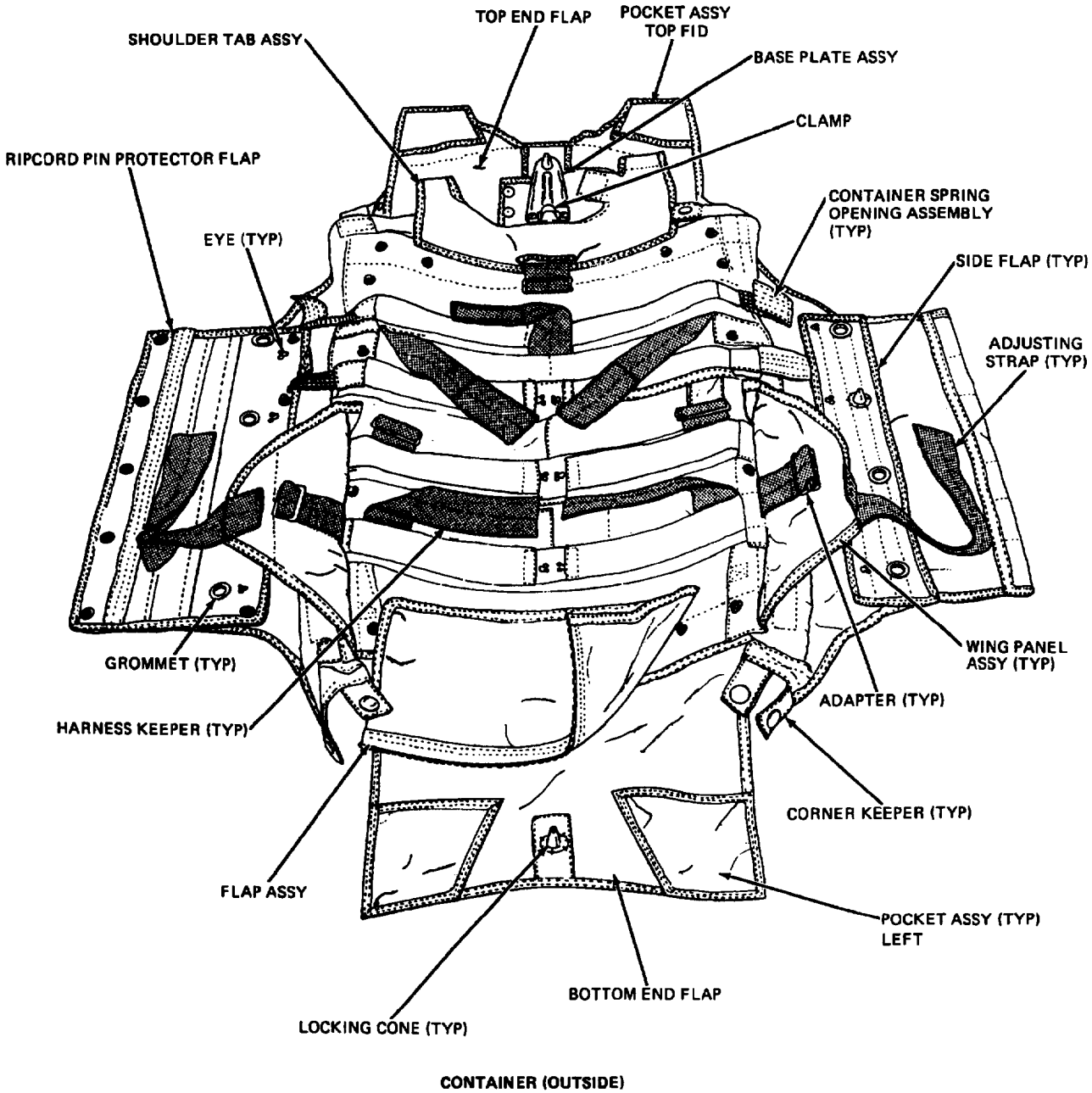

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Figure 2. Subassemblies, NB-8 (Sheet 4 of 4)

ORGANIZATIONAL MAINTENANCE

REPAIR PROCEDURES

NB-8 PERSONNEL PARACHUTE ASSEMBLY

PART NO. 569AS100-5, 569AS100-6, 569AS100-7, and 569AS100-8

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1. INTRODUCTION.

a. This Work Package (WP) contains instructions for organizational level repair to ensure that the parachute remains in Ready-For-Issue (RFI) status.

b. Refer to WP 004 00 for common repairs.

c. When performing repairs detailed in this WP, follow these guidelines:

(1) Review applicable instructions prior to starting repair.

(2) Ensure all necessary support equipment and materials required are available.

(3) When required, remove enough material from it's source for immediate use only. Ensure the material identification ticket remains with the source material at all times. Material that cannot be identified will not be used.

(4) To ensure conformity, all repair work shall be carefully inspected and compared to applicable instructions at completion of work.

(5) A Quality Assurance (QA) inspector shall examine the finished work.

2. HARNESS ASSEMBLY.

3. REPLACEMENT OF FOUR-LINE RELEASE LANYARD PULL LOOP TACKINGS.

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size FF, Type I or II, Class A

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Fully extend pull loop and position between risers (Figure 1).

b. Tack at center of riser and 1/2-in. above bottom of lanyard pull loop with one turn of size FF thread, single and waxed; tie off (Figure 1). (QA)

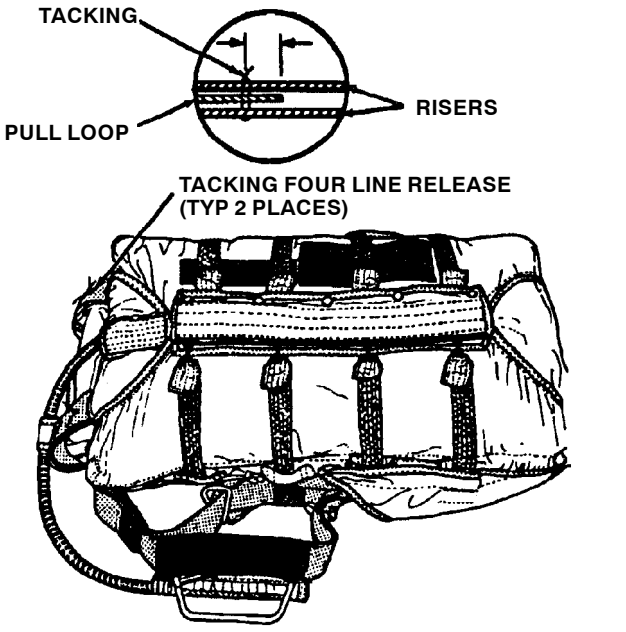

Figure 1. Replacement of Four-Line Release Lanyard Pull Loop Tackings

4. REPLACEMENT OF RAFT RETAINING STRAP TACKINGS WHEN NO SURVIVAL KIT IS INSTALLED.

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Tack raft retaining strap at adapter by passing one turn of size 6 thread, single and waxed, thru strap, around center bar of adapter and thru retaining straps; tie off (Figure 2). (QA)

b. Tack end of raft retaining strap by folding strap end 2-in. under and tack to strap beneath with one turn of size 6 thread, single and waxed; tie off (Figure 2). (QA)

c. Tack center of raft retaining straps by passing one turn of size 6 thread, single and waxed, thru straps and main sling; tie off (Figure 2). (QA)

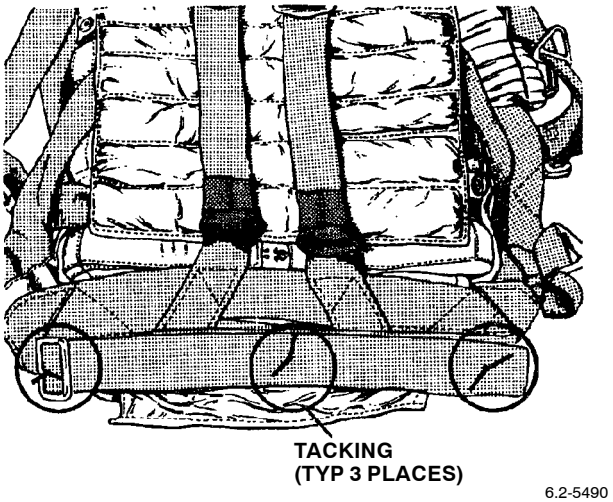

Figure 2. Replacement of Raft Retaining Strap Tackings When No Survival Kit is Installed

5. CONTAINER ASSEMBLY.

6. REPLACEMENT OF HARNESS KEEPER ADAPTER TACKINGS.

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. If necessary, remove backpad.

b. Tack end strap at adapters with one turn of size 6 thread, single and waxed. Pass tacking thru straps and around center bar of adapter; tie off (Figure 3). (QA)

c. If removed, reattach backpad. (QA)

7. REPLACEMENT OF TIES SECURING SHOULDER TABS TO HARNESS.

Materials Required

Specification or Part Number	Nomenclature
PIA-C-5040	Cord, Nylon, Type III

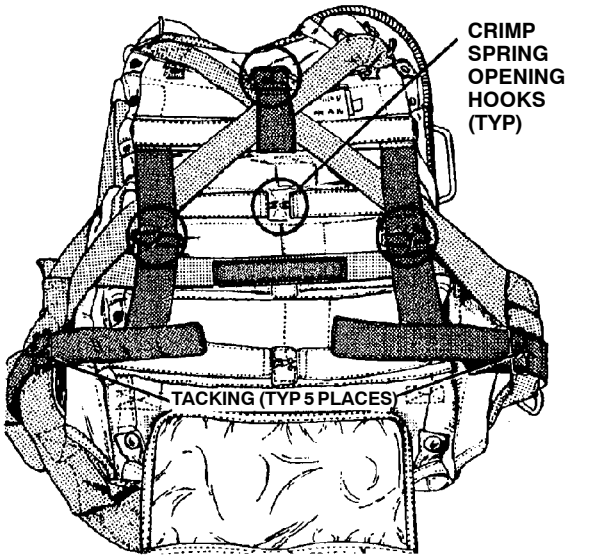

Figure 3. Replacement of Harness Keeper Adapter Tackings

a. Cut a 10-in. length of Type III nylon cord.

b. Remove and discard inner core and sear ends of casing

c. Pass nylon casing thru shoulder tab loop (Figure 4).

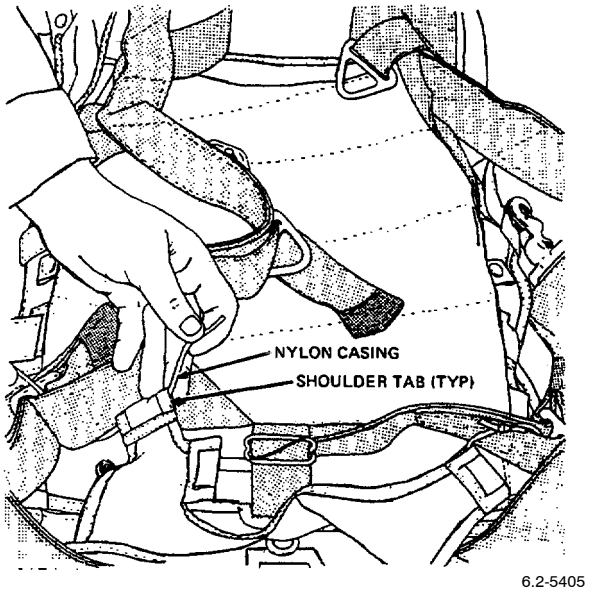

Figure 4. Replacement of Ties Securing Shoulder Tabs to Harness

d. Pass one end of nylon casing thru harness adapter webbing loop. Tie ends of casing together with a square knot. (QA)

8. REPLACEMENT OF SPRING OPENING ASSEMBLY.

a. Measure length of replacement spring opening assembly (60AD113D11-3). Required length from end of one hook to end of other hook with no tension is 10 3/8-in. ± 1/4-in.

b. Draw a pull cord thru spring opening channel.

c. Attach one end of pull cord to hook on spring opening assembly and then draw thru channel.

d. Attach spring opening assembly hooks to container eyes with hook facing container. (QA)

e. Crimp hook attached to eye on center line of container (Figure 3).

9. SURVIVAL KIT.

10. REPLACEMENT OF RAFT RETAINER STRAP AND OUTER CONTAINER VERTICAL AND HORIZONTAL STRAP TACKINGS.

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Raft Retainer Strap.

(1) Remove combination carrying case and equipment container from outer container.

(2) Tack adapter by passing one turn of size 6 thread, single and waxed thru strap and around center bar of adapter; tie off (Figure 5). (QA)

(3) Fold excess strap under and tack strap to outer container with one turn of size 6 thread, single and waxed; tie off (Figure 5). (QA)

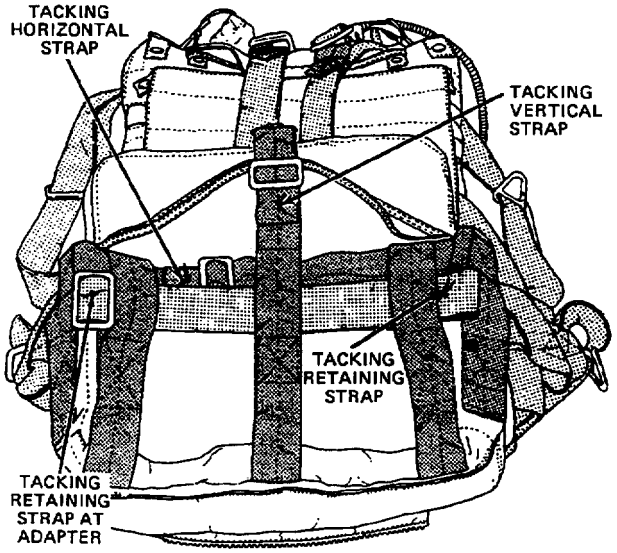

Figure 5. Replacement of Raft Retaining Strap

(4) Reinstall combination carrying case and equipment container into outer container.

b. Outer Container Vertical and Horizontal Strap Tackings.

(1) Remove combination carrying case and equipment container from outer container.

(2) Fold horizontal and/or vertical strap under tucking end under adapter. Tack folded under strap to strap beneath with one turn of size 6 thread, doubled and waxed; tie off (Figure 5). (QA)

(3) Reinstall combination carrying case and equipment container into outer container.

11. REPLACEMENT OF SEAT CUSHION/SEAT PAN TACKINGS.

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Main Panel Tackings.

(1) Remove combination carrying case and equipment container.

(2) Tack main panel to seat cushion/seat pan at mark on either side of quick disconnect shackle with one turn of size 6 thread, doubled and waxed; tie off (Figure 6). (QA)

(3) Reinstall combination carrying case and equipment container.

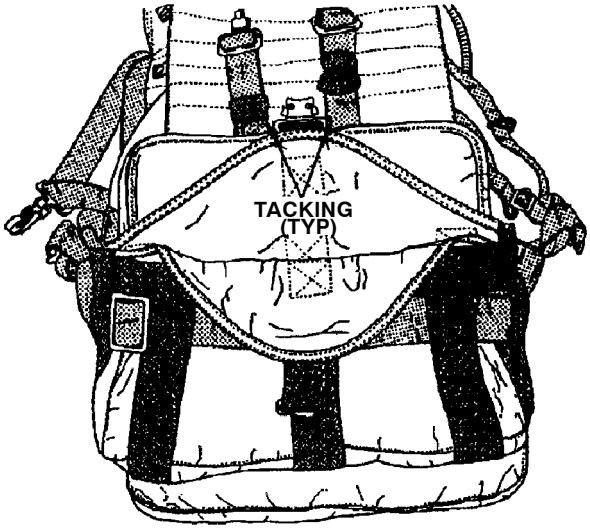

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Figure 6. Replacement of Outer Container Seat Cushions/Seat Pan Main Panel Tackings

b. Four Corner Tackings.

(1) Remove combination carrying case and equipment container.

(2) Tack each corner of outer container to seat cushion/seat pan with one turn of size 6 thread, doubled and waxed; tie off (Figure 7). (QA)

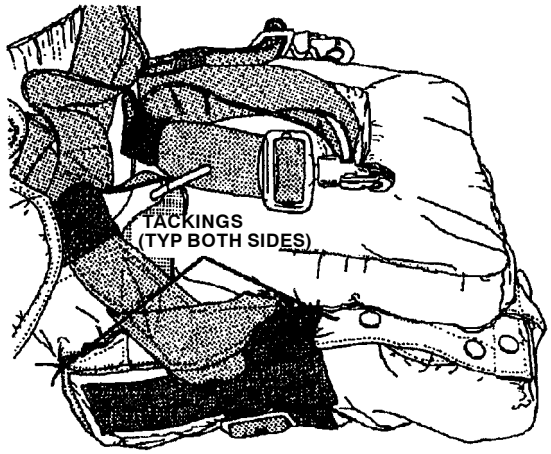

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Figure 7. Replacement of Outer Container to Seat Cushion/Seat Pan Four Corner Tackings

(3) Reinstall combination carrying case and equipment container.

12. REPLACEMENT OF STANDARD SOFT PACK (SSP).

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Remove combination carrying case and equipment container from SSP outer container.

b. Remove all tackings and unreeve harness retaining straps and leg straps. Remove SSP and seat cushion.

c. Attach SSP and seat cushion to harness.

d. If necessary, remove tackings from harness raft retaining strap and unreeve strap.

e. Position packed assembly on packing table with backpad facing up. Slide seat cushion between harness main sling and backpad with slot turned toward top of parachute container (Figure 8).

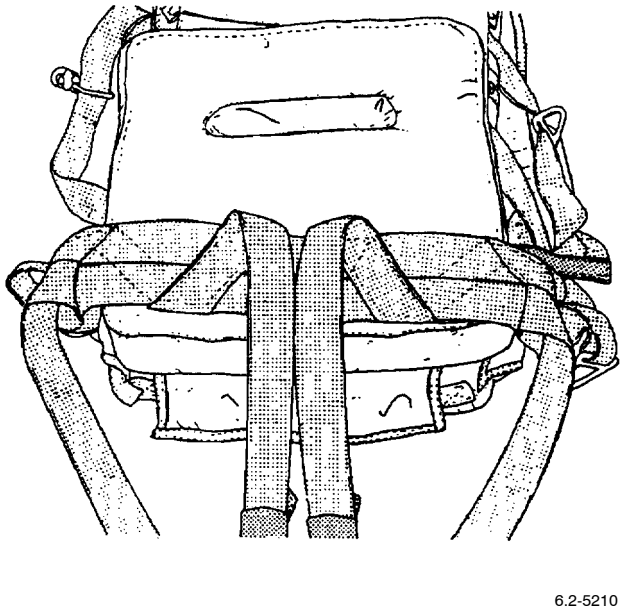

Figure 8. Positioning Packed Assembly

f. If installed, remove and discard the six Type III nylon cord ties from SSP outer container

g. Turn SSP outer container over so that horizontal strap adapter faces up.

h. Position combination carrying case and equipment container on packing table with shoulder straps facing up. Insert combination carrying case and equipment container into SSP outer container. Carrying case and equipment container strap handle must be positioned at open end of outer container (Figure 9).

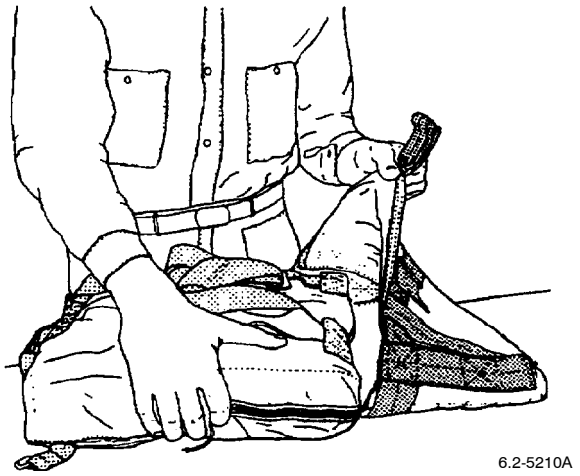

Figure 9. Postioning Combination Carrying Case

i. Pull outer container main panels over combination carrying case and equipment container. Secure vertical strap quick-disconnect shackle outside of strap handle. Reeve horizontal and vertical straps snugly thru adapters.

j. Mark ends of vertical and horizontal straps at edge of each adapter (Figure 10).

Figure 10. Marking Vertical and Horizontal Straps

k. Disconnect vertical strap quick-disconnect shackle and remove combination carrying case and equipment container from outer container.

l. Adjust horizontal and vertical strap adapters to markings made in step j, above. Fold both straps under and tuck ends under each adapter. Tack folded under strap to strap beneath with one turn of size 6 thread, doubled and waxed; tie off (Figure 11).

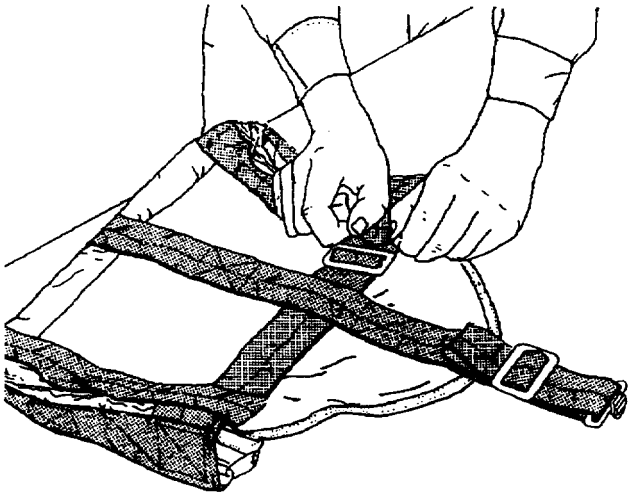

Figure 11. Adjust Horizontal and Vertical Strap

m. Insert combination carrying case and equipment container into outer container and fasten vertical strap quick-disconnect shackle.

n. Place SSP on packing table next to parachute container and pass leg straps thru keepers on SSP (Figure 12).

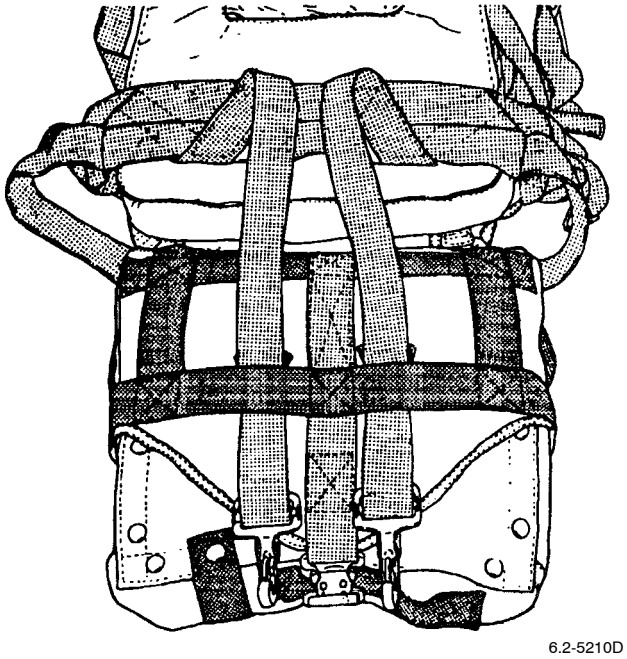

Figure 12. Pass Leg Straps Thru Keepers

o. Rotate SSP onto seat cushion and pass harness leg straps thru slot in seat cushion (Figure 13).

Figure 13. Rotate SSP onto Seat Cushion

p. Reeve raft retaining straps thru keepers on sides and top of SSP. Remove combination carrying case and equipment container from SSP outer container. Tack around center bar of raft retaining strap adapter with one turn size 6 thread, single and waxed; tie off. Tack center and end of retaining strap to SSP outer container with one turn of size 6 thread, single and waxed; tie off (Figure 14).

Figure 14. Reeve Raft Retaining Straps Thru Keepers

q. Insert combination carrying case and equipment container into SSP outer container.

r. Center-seat cushion slightly behind SSP quick-disconnect shackle. Mark SSP outer container main panel edges and seat cushion on each side of vertical strap for future tacking (Figure 15).

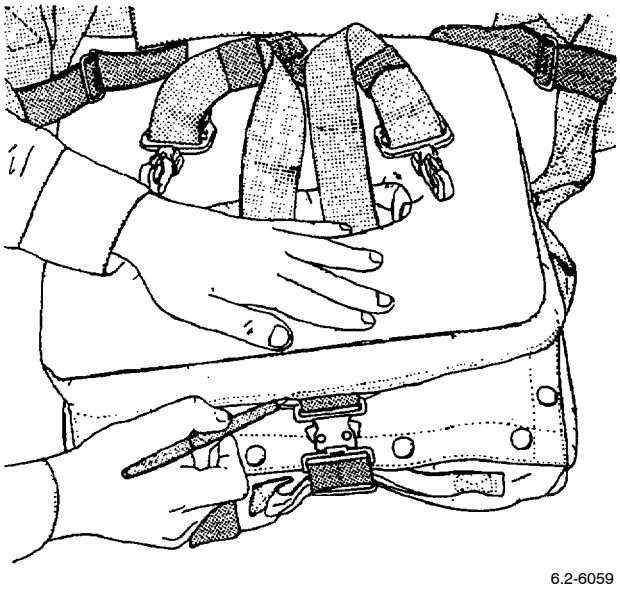

Figure 15. Center Seat Cushion Behind SSP

s. Remove combination carrying case and equipment container from SSP outer container.

t. Tack main panel edges to seat cushion at locations marked in step s one turn of size 6 thread, doubled and waxed; tie off. Note that when seat cushion is tacked, it will hang over back of SSP outer container (Figure 16).

Figure 16. Tack Main Panel Edges

u. Tack four corners of SSP outer container to seat cushion using one turn of size 6 thread, doubled and waxed; tie off. If necessary, compress seat cushion slightly to stitch rear corner tackings. Insert combination carrying case and equipment container. Ensure that quick-disconnect shackle is fastened (Figure 17). (QA)

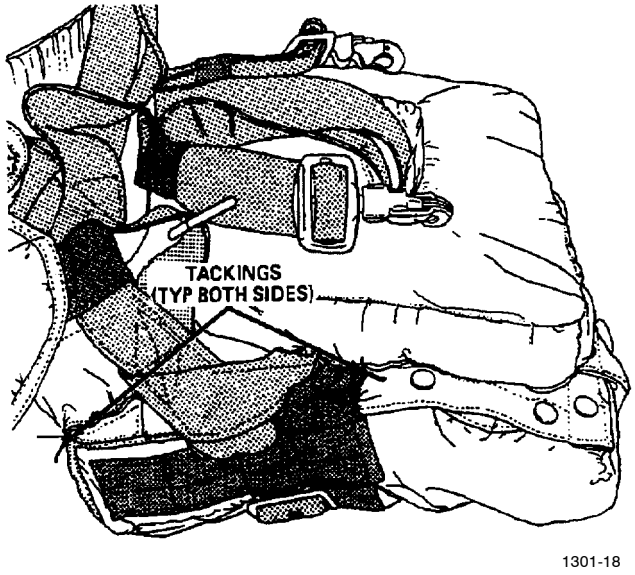

Figure 17. Tack Four Corners

13. REPLACEMENT OF SEAT CUSHION.

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Remove tackings securing seat cushion to SSP outer container; remove seat cushion.

b. Position packed assembly on packing table with backpad facing up. Slide seat cushion between harness main sling and backpad with slot turned toward top of parachute container.

c. Rotate SSP onto seat cushion and pass harness leg straps thru slot in seat cushion (Figure 18).

Figure 18. Rotate Standard Soft Pack

d. Center-seat cushion slightly behind SSP quick-disconnect shackle. Mark SSP outer container main panel edges and seat cushion on each side of vertical strap for future tacking (Figure 19).

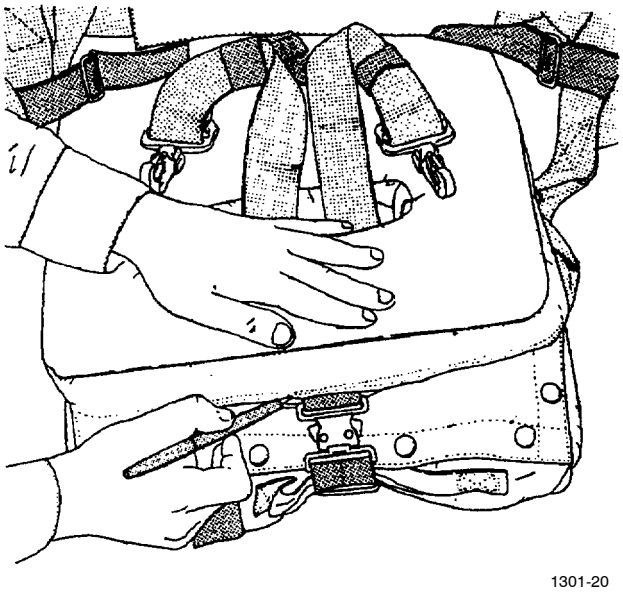

Figure 19. Center-Seat Cushion

e. Remove combination carrying case and equipment container from SSP outer container.

f. Tack main panel edges to seat cushion at locations marked in step d, with one turn of size 6 thread, doubled and waxed; tie off. Note that when seat cushion is tacked, it will hang over back of SSP outer container (Figure 20).

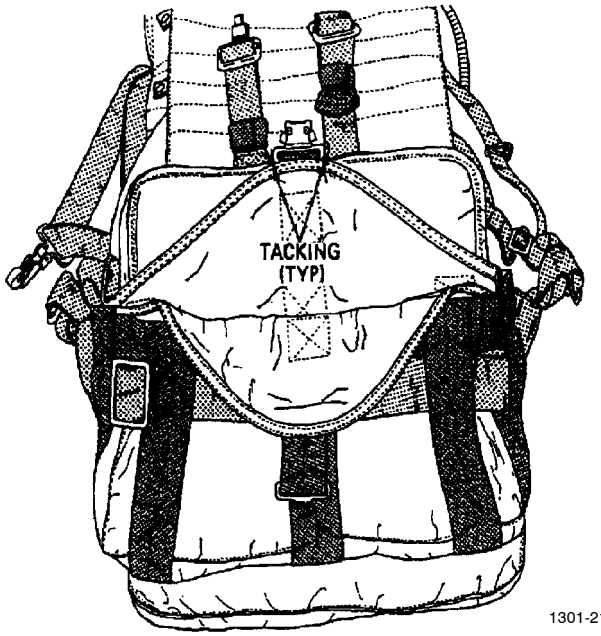

Figure 20. Tack Main Panel Edges

g. Tack four corners of SSP outer container to seat cushion using one turn of size 6 thread, doubled and waxed; tie off. If necessary, compress seat cushion slightly to stitch rear corner tackings. Insert combination carrying case and equipment container. Ensure that quick-disconnect shackle is fastened (Figure 21). (QA)

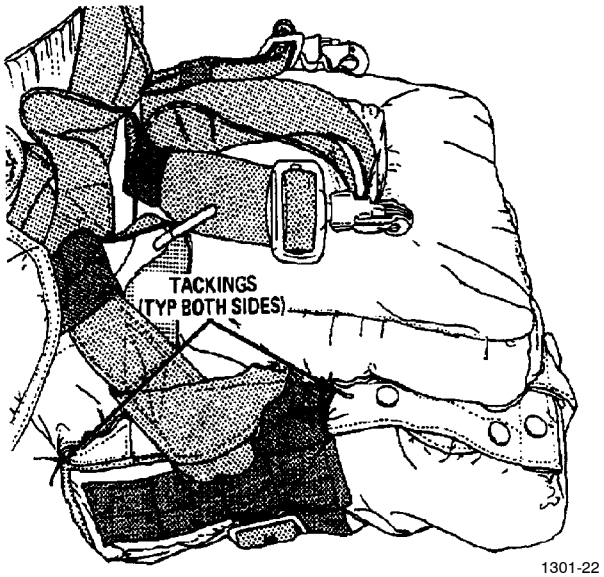

Figure 21. Tack Container to Cushion

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INTERMEDIATE AND DEPOT MAINTENANCE

PACKING PROCEDURES

NB-8 PERSONNEL PARACHUTE ASSEMBLY

PART NO. 569AS100-5, 569AS100-6, 569AS100-7 and 569AS100-8

List of Effective Work Package Pages

Page No.	Chg. No.	Page No.	Chg. No.	Page No.	Chg. No.	Page No.	Chg. No.
1	11	4	11	9 thru 10	11	31	11
2 thru 3	9	5 thru 8	9	11 thru 30	9		

Reference Material

Cartridge Actuated Devices (CADS) and Propellant Actuated Devices (CADS) (IETM) . . . . . NAVAIR 11-100-1.1
Intermediate and Depot Maintenance, Common Repairs . . . . . WP 004 00
Organizational, Intermediate and Depot Maintenance, Illustrated Parts Breakdown,
NB-8 Personnel Parachute Assembly . . . . . WP 013 04
Organizational, Intermediate and Depot Maintenance, Parachute Loft Requirements/Administration . . . . . WP 003 00
Organizational, Intermediate and Depot Maintenance, Support Equipment . . . . . WP 005 00

Alphabetical Index

Record of Applicable Technical Directives

None

1. GENERAL.

a. Packing instructions are provided with the assumption that they will be carried out under ideal conditions in a parachute loft (WP 003 00). When a parachute must be packed under unfavorable conditions, provisions must be made to protect it from possible damage and excessive humidity.

b. In no case shall packing of a parachute be interrupted after packing operation has been started. If the packing operation is interrupted due to unforeseen circumstances, the parachute shall be completely repacked per instructions contained in this Work Package (WP).

c. Quality Assurance (QA) points have been included in the packing procedures. When a procedural step is followed by "(QA)" there is a quality assurance requirement. Witnessing of QA steps may be delayed by QA if their satisfactory completion is verified in later steps.

d. During packing procedures, packer shall be positioned on left side of packing table, and helper on right side when viewed from harness/riser end of table.

2. PRELIMINARY PROCEDURES.

Support Equipment Required

Part Number	Nomenclature
711-07076	Altitude Chamber
Refer to WP 005 00	Fid
Refer to WP 005 00	Guide Tube
Refer to WP 005 00	Long Bar (2)
Refer to WP 005 00	Packing Hook
Refer to WP 005 00	Ripcord Pin Lock
DPP-50	Scale, Spring
Refer to WP 005 00	Shot Bag (4)
11-1-3512	Small Line Separator
Refer to WP 005 00	Temporary Locking Pin (4)
Refer to WP 005 00	Temporary Locking Pin Plate

Materials Required

Specification or Part Number	Nomenclature
PIA-C-5040	Cord, Nylon, Type I or IA
711-07077	Test Slug (3)
F-900 Torque Seal (Color Optional)	Sealing Compound
V-T-295	Thread, Nylon, Size A, Type I or II, Class A
V-T-295	Thread, Nylon, Size FF, Type I or II, Class A
V-T-295	Thread, Nylon, Size 3, Type I or II, Class A
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A

a. Ensure that all support equipment and materials required are available prior to starting.

b. Inspect packing tools for nicks, burrs, or sharp edges which may cause damage to the parachute assembly.

c. Count and record number of packing tools.

d. Clean packing table.

3. LAYOUT OF RIGGED PARACHUTE ASSEMBLY.

a. Completely open parachute container and detach spring opening assemblies and corner keepers.

b. Remove canopy from container and then remove tacking securing connector links to container.

c. Stretch canopy and suspension lines full length on packing table.

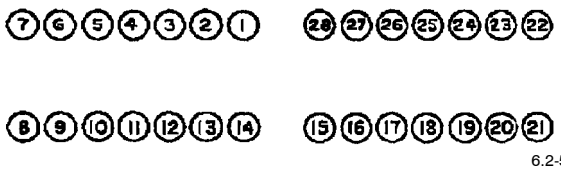
d. Locate gore 28 (nameplate gore) and place uppermost in center of packing table.

e. Attach tension strap hook to canopy vent lines.

f. Separate suspension lines into two equal groups with lines 1 thru 14 on packer's side and 15 thru 28 on helper's side. Grasping each group of lines, walk from skirt hem to connector links removing any twists between the two groups.

g. Position container on packing table with inside facing up and ripcord pocket on packer's side of table.

h. Place connector link holding lines 1 thru 7 on top of connector link holding lines 8 thru 14. Place connector link holding lines 22 thru 28 on top of connector link holding lines 15 thru 21. Insert tension hooks into connector links and insert hooks into packing table (Figure 1).



6.2-5332

Figure 1. Arrangement and Orientation of Suspension Lines on Connector Links

i. Tension canopy using tension strap.

j. Pull canopy vent collar below upper lateral band. Ensure that upper lateral band is even (Figure 2).

k. Pull vent collar back to original position.

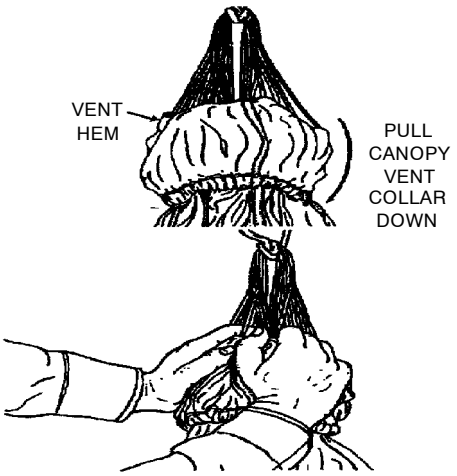


Figure 2. Adjustment of Vent Hem

4. AUTOMATIC PARACHUTE RIPCORD RELEASE REMOVAL/DISARMING/DISASSEMBLY (IF INSTALLED).

WARNING

Do not pull arming cable from armed release assembly, as this will cause it to fire.

a. Open release assembly pocket in the parachute container and remove release assembly enough distance to allow disassembly.

b. Remove cover locking screw and washer (Figure 3).

NOTE

Cover and power cable assembly and receiver and barrel assembly are serialized, matched set. Do not mix assemblies.

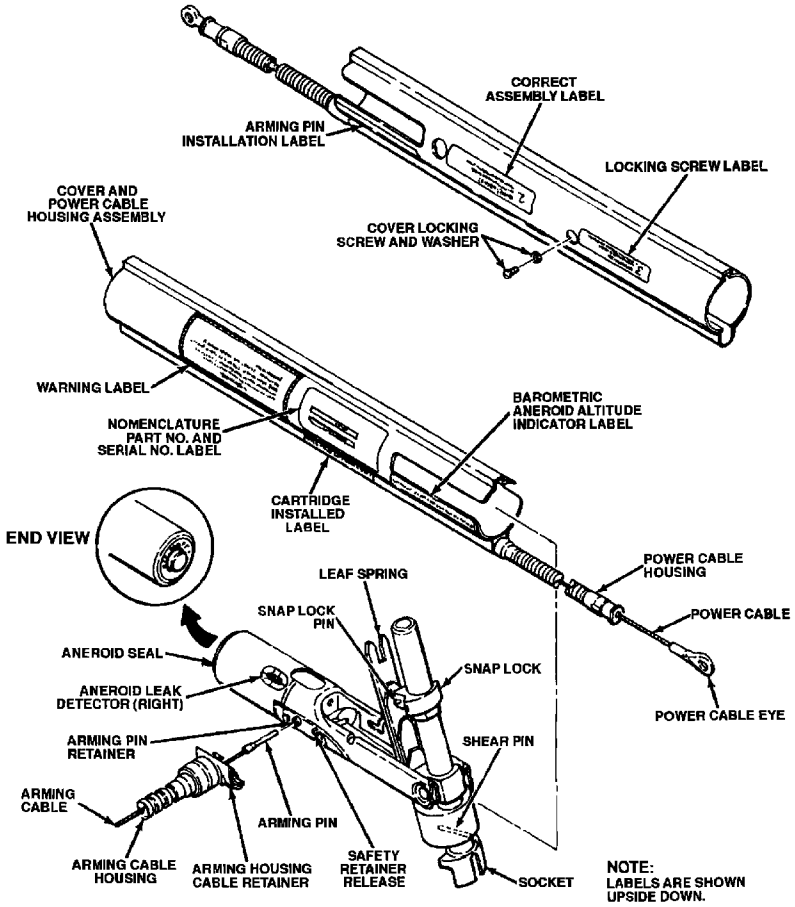


Figure 3. Automatic Parachute Ripcord Release, Model 7000

c. Slide cover off receiver and barrel assembly.

d. Disengage barrel by pushing down on snap-lock; slide back and release (Figure 4).

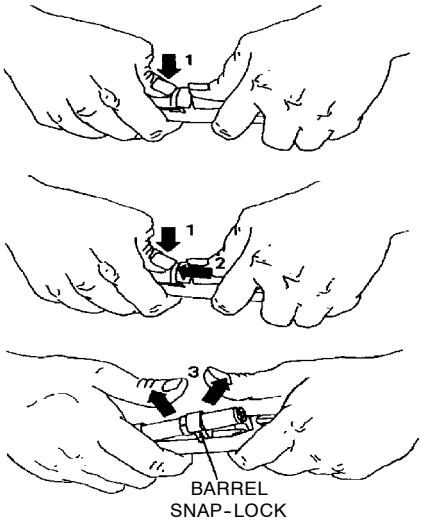


Figure 4. Disarming Ripcord Release

e. Remove cartridge from barrel immediately after barrel is disengaged. Store cartridge per NAVAIR 11-100-1.1. (QA)

f. Remove arming cable housing from receiver and barrel by depressing retainer release (Figure 4). Remove arming cable housing from receiver, leaving arming cable pin installed.

g. Ensure that arming cable pin is positively retained by arming pin retainer (Figure 3).

h. Remove arming cable pin from receiver by grasping arming pin and pulling.

i. Remove arming cable and clip from arming cable housing.

j. Remove lanyard assembly from lanyard stowage channel.

5. INSPECTION (SPECIAL).

a. Maximum scheduled repack cycle is 1460 days for the P-3, C-130, and C-2 aircraft.

b. Maximum scheduled repack cycle is 840 days for the T-34 aircraft.

6. SERVICE LIFE CHECK AND CONFIGURATION UPDATING.

NOTE

Unless otherwise noted, parachute component life shall start on the month of the date of manufacture and expire on the last day of that month.

a. All internal service life components, including cartridges, shall be replaced if service life expires prior to the next repack cycle. Repack cycles may be shortened to correspond to the first component that is expiring prior to the next inspection cycle. An external overage component (i.e. Parachute Harness Sensing Release Unit Cartridge) can be replaced without a parachute repack.

NOTE

Upon initiation of any Quality Deficiency Report (QDR), contact the In-Service Support Team at NAWCWD, China Lake, CA.

b. When replacing an external overage component without a parachute repack, draw a single red line through any information pertaining to that component on the Parachute Record (OPNAV 4790/101). The replacement component will be annotated on the next available line. The QA who witnessed the task shall apply the QA stamp to the right of the entry and complete the VIDS/MAF (OPNAV 4790/60).

c. A parachute assembly may be opened to permit compliance with a Technical Directive. After completion of directive, the parachute assembly repack cycle may be re-based if all parachute components have the necessary life available or may be returned with the original repack date in order to keep it aligned with the actual aircraft inspection cycle.

d. When a component reaches the service/total life limit, it shall be returned to supply for disposition.

e. If parts received from supply are lacking a date of manufacture and are new in manufacturer's packaging, they may be used for one complete repack cycle, then removed. Place "No Date of Manufacture" in the Date of Manufacture's block on the Parachute Record (OPNAV 4790/101). Submission of a Quality Deficiency Report (QDR) shall follow each occurrence.

f. Components without a service/total life shall be removed from service if the components do not pass inspection, as determined by Quality Assurance Representative (QAR) or Collateral Duty Inspector (CDI).

g. Check date placed-in-service and date of manufacture on each parachute part for service/total life as follows:

Nomenclature	Service Life (Yr)	Total Life (Yr)
Canopy Assembly	None	15
Cartridge M284	Refer to NAVAIR 11-100-1.1	
Harness Assembly	None	15
Lanyard Assembly	2	7
Pilot Parachute		15
Pilot Parachute Connector Strap		15

(1) Markings for completeness, legibility, and agreement with information on Parachute Record (OPNAV 4790/101).

(2) Compare configuration of parachute assembly to that shown in WP 013 04 Illustrated Parts Breakdown.

7. AUTOMATIC PARACHUTE RIPCORD RELEASE.

NOTE

Do not mismatch cover and power cable housing assembly and barrel and receiver assembly.

a. Serial numbers on the cover and power cable housing and receiver and barrel assembly for matched numbers. (QA)

b. Receiver and barrel assembly for nicks, cracks, gouges, distortion, corrosion, or other damage which could cause malfunction in-service.

c. Decals and labels for legibility and security of attachment.

d. Cover and power cable housing for nicks, gouges, distortion, corrosion, and security of power cable housing.

e. Power cable for freedom of movement and secure attachment of swaged ball and power cable eye (Figure 5).

f. Arming cable clip retainer and retainer pin for distortion, corrosion, and other damage.

g. Arming cable housing for bends, retention of end furrel, retention of housing retainer.

h. Aneroid for evidence of expansion and correct indication.

i. Ensure proper retention of arming pin retainer by inserting arming pin in retainer while barrel is unlocked. Press pin into place firmly until locked into pin groove. Pin should now be held securely.

j. Manually pull arming cable pin from retainer, ensuring that pin was properly secured. (QA)

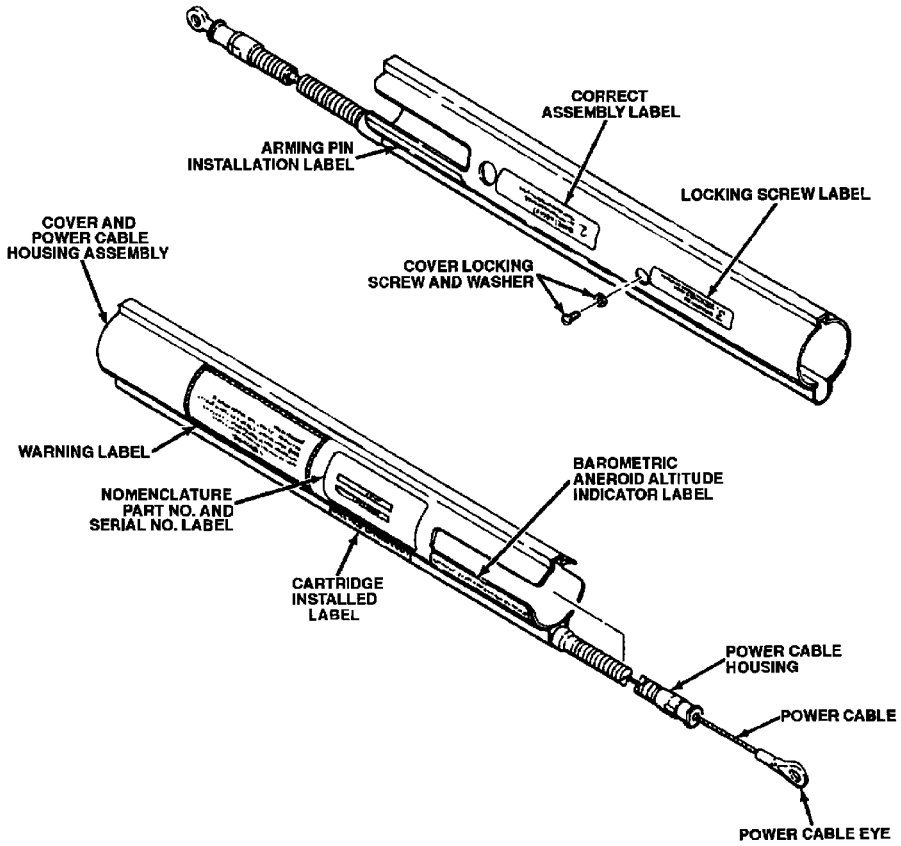


Figure 5. Attachment of Swaged Ball and Power Cable Eye

k. Sealing compound on aneroid; seal must be intact. Cracks due to normal aging of seal material are acceptable (Figure 6).

WARNING

Do not twist socket, as this will break shear pin.

l. Socket for visible damage and retention of socket and piston by shear pin.

m. Snap-lock pin for security and damage.

n. Teflon seal (inside of barrel) for placement.

o. Firing pin for flattening, gouges, and other damage.

p. Leaf springs on receiver and barrel assembly for damage; leaf spring retaining screw for condition and presence of torque seal (Figure 7).

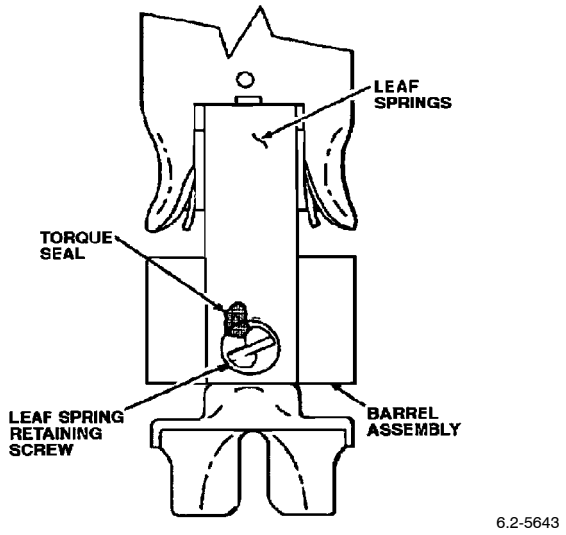


Figure 7. Presence of Torque Seal

8. RIPCORD RELEASE FIRING ALTITUDE CHECK.

a. Install test chamber substitute arming pin in ripcord release.

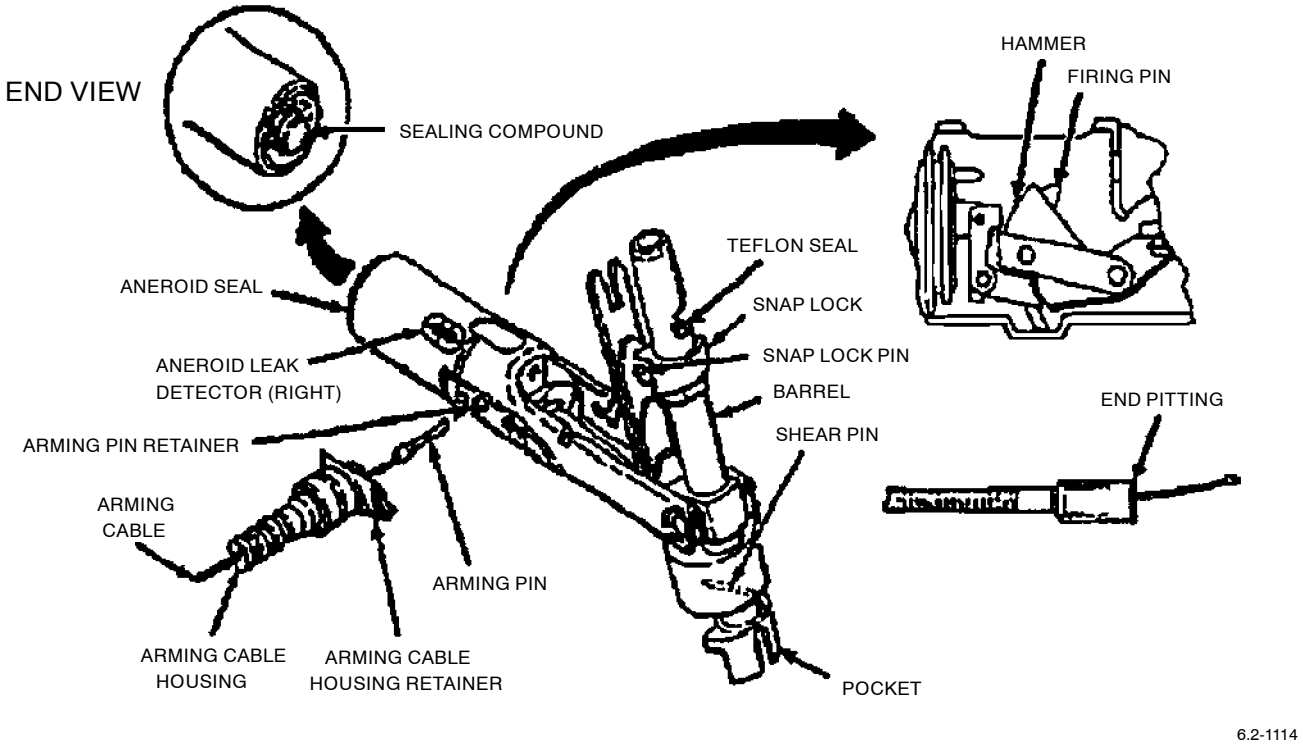


Figure 6. Sealing Compound Check

CAUTION

Do not release firing mechanism without test slug installed, as this will distort the firewall.

b. Install test slug.

CAUTION

At no time will a tool or other device be used to open or close the ripcord release.

c. Press barrel down into position in receiver, ensure snap-lock pins lock barrel in position.

d. Perform firing altitude check:

NOTE

Determine whether actuator being tested is pre-set for 10,000 ft. or 14,000 ft. The ripcord release firing check must simulate ± 1,000 ft. of pre-set altitude.

(1) Install barrel and receiver in test chamber. (QA)

(2) Set altimeter to 29.92 in. Hg. (QA)

(3) Evacuate chamber to a minimum of 25,000 ft. pressure altitude. (QA)

(4) Decrease altitude at a rate of 175 to 200 ft./sec. (QA)

(5) Actuate arm toggle to withdraw arming pin at approximately 20,000 ft. pressure altitude. (QA)

(6) Verify altitude at which ripcord release firing pin strikes test slug. (QA)

(7) Remove test slug from barrel; check primer for indent; indent must be present and centered. (QA)

CAUTION

Test slug must be removed from barrel after each use.

(8) Repeat firing altitude check two additional times; using a new test slug each time; the ripcord release must pass all three firing altitude checks. (QA)

(9) Discard test slugs. (QA)

(10) Remove ripcord release from altitude chamber. (QA)

9. RIPCORD RELEASE END FITTING REMOVAL TEST.

NOTE

The arming cable and housing shall be removed from the automatic parachute ripcord release assembly.

a. Helper shall hold arming cable housing stready on packing table.

b. Attach gage to the swaged ball using Type I or IA nylon cord.

c. Using a straight steady pull, observe amount of pull required to remove end fitting from arming cable housing. Allowable force is 17 lbs. ± 3 lbs. (QA)

10. SUSPENSION LINE CONTINUITY CHECK.

a. Packer shall grasp line 1 on left side of gore 28 and raise suspension line to a height sufficient to ensure that suspension line continuity is maintained (Figure 1) and is free of dips and twists from skirt hem to connector link, and continue procedure with suspension lines 2 through 14. (QA)

b. Use the same procedure as in subparagraph a above on right side of gore 28, except packer shall start with suspension line 28 and work through suspension line 15. (QA)

11. CANOPY ASSEMBLY.

a. Canopy skirt hem, fabric surface, diagonal seams, radical seams, vent hem, water deflation pockets, for cuts, holes, ruptures, contamination, deterioration, and loose or broken stitching.

b. Suspension lines and canopy apex lines for fraying, ruptures, protruding inner core lines, burns, contamination, and presence of twists.

c. Attachment of suspension line at skirt hem for security and condition of V-tabs.

d. Attachment of four-line release lanyards to anchor loops on suspension lines 3 and 26.

e. Activate four-line release and retack per WP 004 00. (QA)

f. Connector links for corrosion, distortion, nicks, burrs, sharp edges, and cracks.

NOTE

For Double "L" Connector Link, refer to WP 013 03 for disassembly, assembly, and inspection instructions.

g. Connector links for defective yoke and plate assemblies. Maximum of 1/32-in. play allowable in plate.

h. Torque seal unbroken with yoke and plate assemblies installed with knurled portion facing up and screwheads facing outboard (Figure 8). (QA)

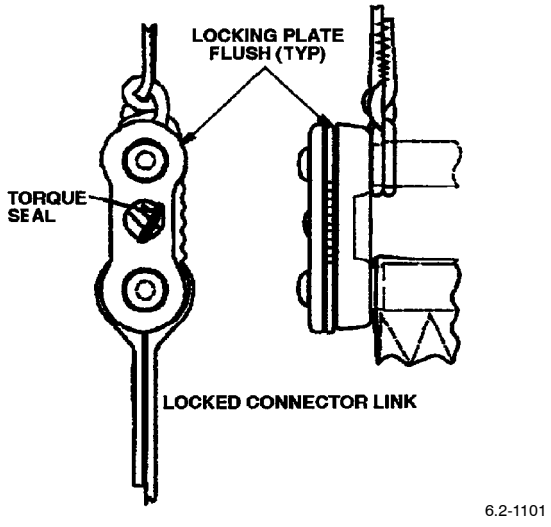


Figure 8. Torque Seal Unbroken

12. PILOT PARACHUTE CONNECTOR STRAP.

a. Fabric surfaces, and seams for cuts, tears, burns, fraying, and loose or broken stitching.

b. Vane material for cuts, tears, burns, fraying, and deterioration.

c. Seam area at crown for seam separation.

d. Spring assembly for distoration.

e. Loose or broken tackings (4 places) at bottom of coil spring.

f. Connector strap for cuts, fraying, burns, loose or broken stitching.

g. Connector strap for proper attachment at apex lines and pilot parachute loop.

h. Connector strap for loose or broken tacking of Lark's head knot at pilot parachute loop.

13. HARNESS AND RISERS.

a. Webbing for contamination, rust at points of contact with metal parts, cuts, twists, fading, wear, fraying, burns, abrasions, and loose or broken stitching.

b. Elastic keepers for condition (6 each) and proper location. Refer to WP 013 04, Figure 1.

c. Triangle links for damage, corrosion, and security of attachment.

d. Ejector snaps and adapters for damage, corrosion, security of attachment, and ease of operation.

14. CONTAINER AND BACKPAD.

a. Grommets, cones, snap fasteners for security of attachment, cracks, corrosion, nicks, and gouges.

b. Slide fasteners for condition and proper operation.

c. Fabric areas for seam separations, loose or broken stitching, cuts, tears, contamination, and deterioration.

d. Hardware for corrosion, bends, dents, nicks, sharp edges, and security of attachment.

e. Spring opening assemblies for broken springs, contamination, corrosion, cuts, fraying, bent or broken hooks, elasticity, and loose or broken stitching. Proper length is 9 1/4 $\pm$ 1/4-in. measured with no tension from end of one hook to end of other hook.

f. Spring opening eyes (8) for security of attachment.

g. Ripcord release pocket slide fastener for proper operation.

h. Backpad for contamination, cuts, tears, burns, loose or broken stitching, missing or defective keepers and snap fasteners.

i. Proper attachment of back pad to container.

15. RIPCORD AND RIPCORD POCKET.

a. Ripcord cable for corrosion, bends, fraying, broken strands, and security of swaged terminal ball.

b. Locking pins for bends, dents, cracks, security of attachment to cable, and corrosion.

c. Grip for bends, dents, cracks, and corrosion.

d. Housing for corrosion, bends, dents, loose swaged end ferrules, breaks, and cracks.

e. Pocket fabric areas and elastic for contamination, cuts, tears, burns, fraying, loose or broken stitching.

f. Pocket for loose or broken tackings.

16. PACKING.

17. AUTOMATIC PARACHUTE RIPCORD RELEASE ASSEMBLY AND ARMING (IF INSTALLED).

NOTE

Right side of release assembly contains the aneroid leak detector.

WARNING

Ripcord release with proper altitude setting, time delay cartridge, arming cable housing, and lanyard assembly must be used.

a. Ensure ripcord release has proper altitude setting, arming cable housing, and lanyard assembly. (QA)

b. Ensure arming cable housing is routed through hole in left side of release pocket and button hole in left side of container.

c. Insert arming cable into cable housing.

d. Attach clip retainer to cable housing.

e. With receiver and barrel assembly in the open position, install arming pin release assembly by inserting and locking (arming pin is fully seated when an audible click is heard) the arming pin into the arming pin retainer, ensuring the arming cable housing exits out the left side of container (Figure 9). (QA)

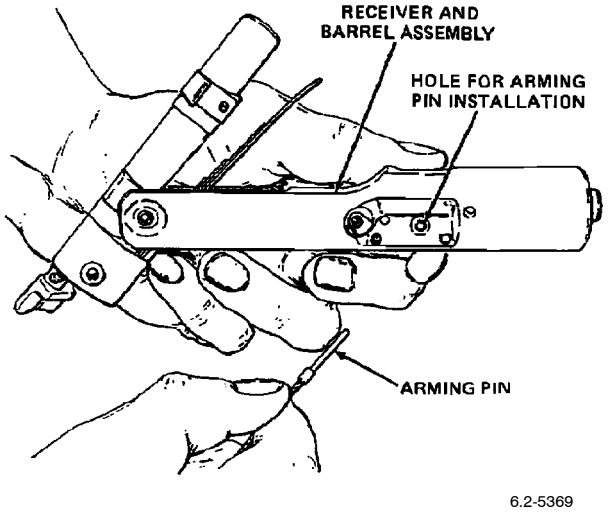


Figure 9. Installation of Arming Pin

WARNING

To ensure proper penetration of cartridge primer; firing pin/hammer assembly must be completely retracted. If edge where curved surface meets flat surface of hammer assembly is not aligned directly above arming pin, release assembly is not properly armed.

f. Ensure that firing pin/hammer assembly is completely retracted. The firing pin/hammer is completely retracted if top edge of hammer is aligned above arming pin (Figure 10). (QA)

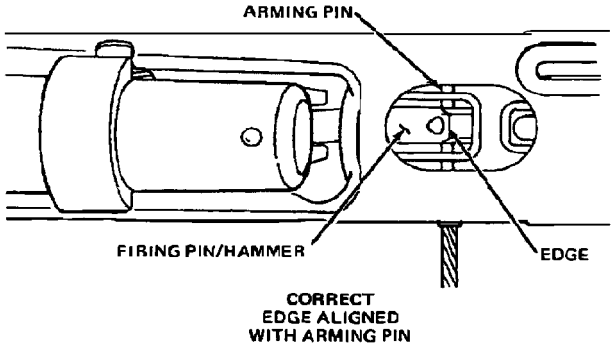


Figure 10. Verification of Firing Pin/Hammer Retraction

g. Connect arming cable housing retainer to receiver and barrel assembly. Ensure that safety retainer secures housing to receiver (Figure 11).

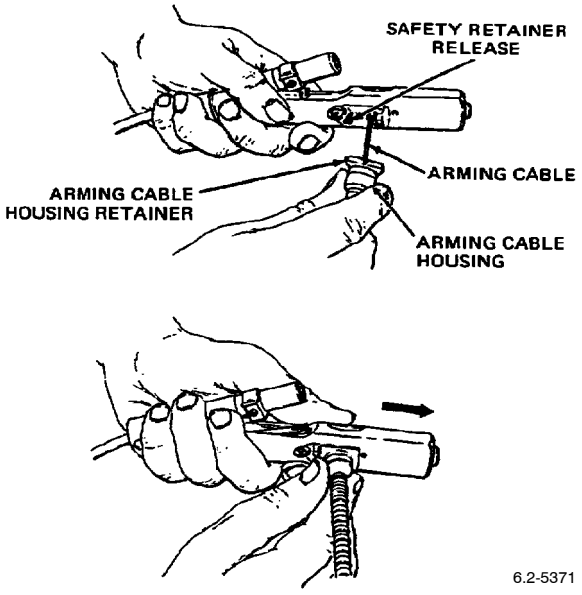


Figure 11. Attachment of Arming Cable Housing

WARNING

Complete arming and installation is mandatory from this point as a safety measure.

h. Enter nomenclature, part number, lot number DODIC, date of manufacture, can open date, and expiration date on Parachute Record (OPNAV 4970/101). (QA)

WARNING

Before installing delay cartridge in the automatic parachute release, be sure that the arming pin has been inserted thru both the hammer and lock.

i. Insert proper cartridge per WP 013 04. (QA)

WARNING

If arming pin is improperly installed, cartridge will fire while locking barrel.

j. While pressing barrel down, look thru inspection hole in receiver and ensure that hammer assembly does not swing toward firewall. If hammer swings, arming pin is improperly installed. Do not attempt to assemble release assembly further, as this could discharge cartridge. Disassemble improperly armed release assembly and rearm.

k. Press barrel down into position in receiver. As barrel reaches proper position, exert forward pressure on snap-lock, causing snap-lock pins to lock barrel in position. Ensure that snap-lock is aligned with alignment arrow (Figure 12).

l. Position cover and power cable housing assembly with power cable facing container.

m. Position receiver and barrel assembly so that locking screw hole aligns with locking screw hole in cover and power cable housing assembly (Figure 12).

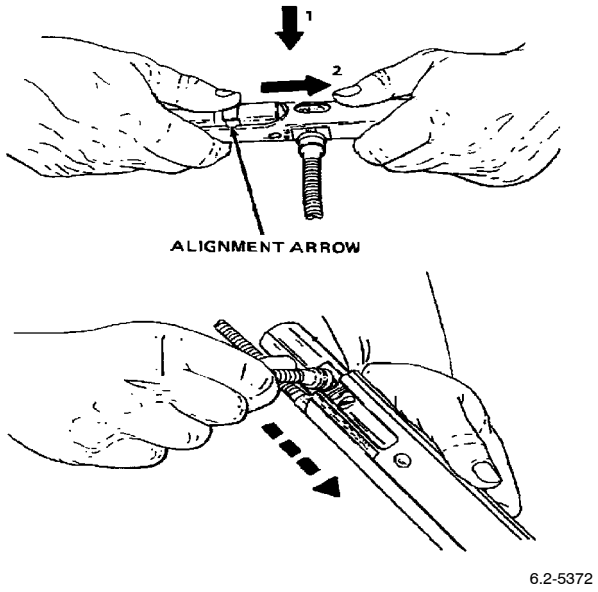


Figure 12. Installation of Arming Pin

n. Hold release assembly as shown in Figure 12 and slide receiver and barrel assembly into cover and power cable assembly until holes for screw are aligned.

o. Install cover locking screw and lockwasher. Apply torque seal to locking screw.

WARNING

After the automatic parachute release has been assembled with the delay cartridge, the firing pin/hammer is in a cocked position. Movement of the arming cable from the parachute release in excess of 0.5-in. will cause actuation of the device.

18. AUTOMATIC PARACHUTE RIPCORD RELEASE ARMED CHECKOUT AND INSTALLATION (IF INSTALLED).

a. Ensure arming pin protrudes (about 1/32-in.) from arming pin retainer (Figure 13).

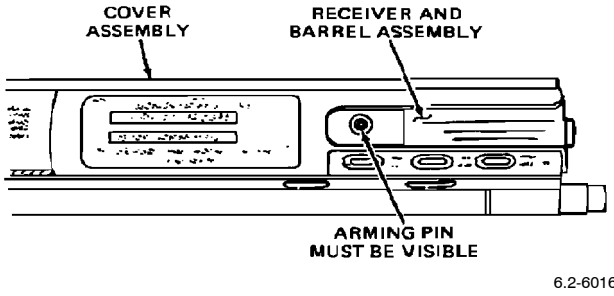


Figure 13. Ensure Arming Pin Protrudes

b. Ensure roll pin is visible and centered ± 1/8-in. in viewing hole (Figure 14).

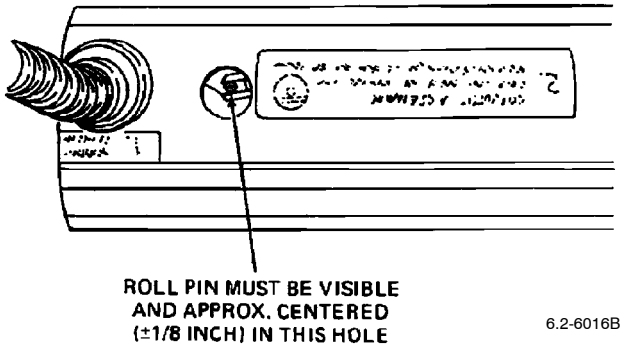


Figure 14. Ensure Roll Pin is Visible

c. Ensure cover locking screw is installed, and torque seal is applied (Figure 15).

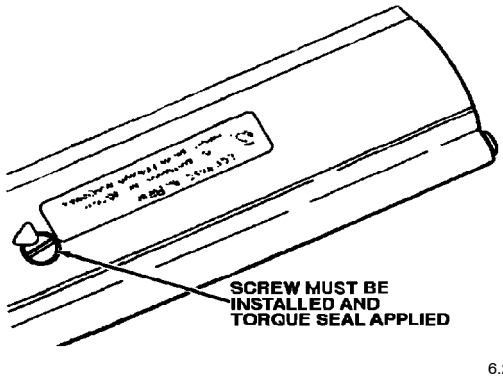


Figure 15. Ensure Cover Locking Screw is Installed

d. Ensure aneroid indicator is in proper position in relation to local elevation (Figure 16).

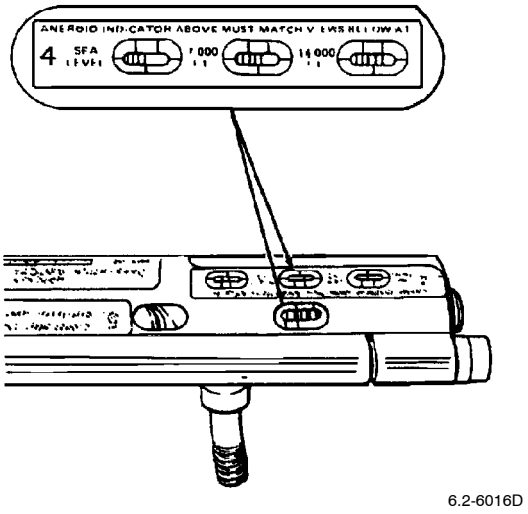


Figure 16. Ensure Aneroid Indicator is in Proper Position

e. Ensure cartridge is installed. Look thru port and verify cartridge rim is visible (Figure 17). (QA)

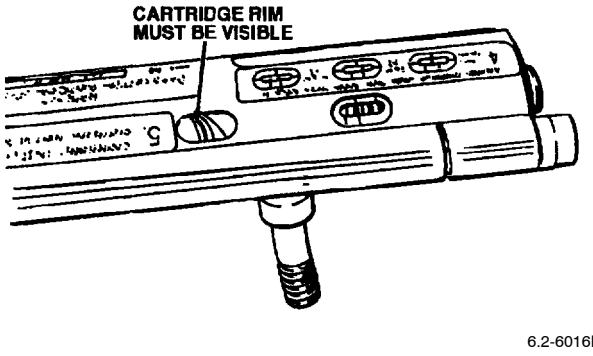


Figure 17. Ensure Cartridge is Installed

f. Completely insert ripcord release into pocket and close slide fastener and flap.

19. WHIPPING AND FOLDING OF CANOPY.

a. The packer and helper shall lift the suspension line on each side of nameplate gore up and out. The skirt hem between lines shall be taut so that the canopy apex can be seen on inside. While holding suspension lines up, each man shall whip the gore hanging from line outwards to prepare canopy for folding (Figure 18).

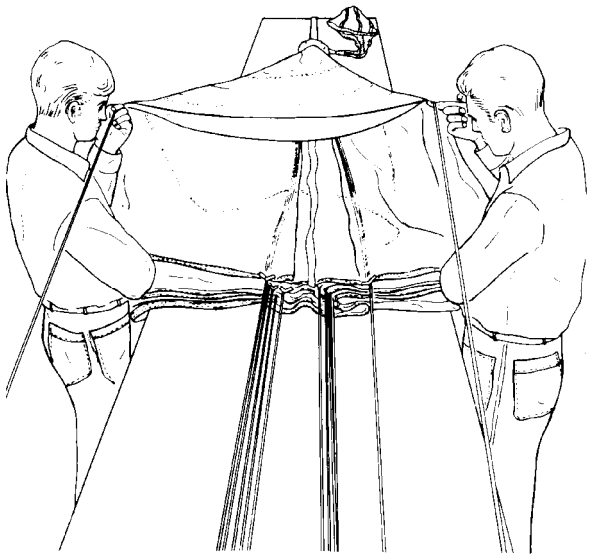


Figure 18. Lift Suspension Line on Each Side of Nameplate

b. Draw next suspension line upwards to suspension line in hand, using a rapid, circular motion (Figure 19).

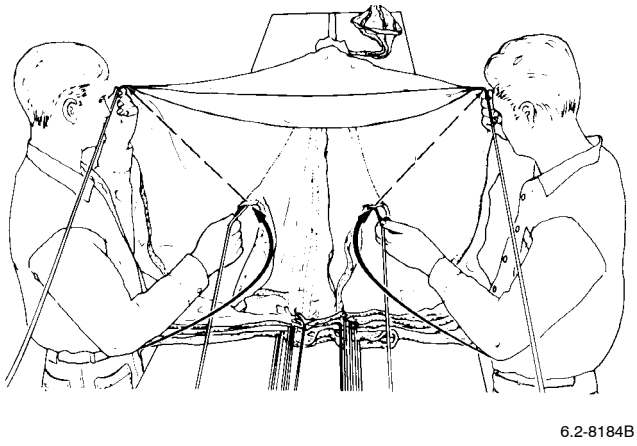


Figure 19. Draw Next Suspension Line Upwards

c. Continue whipping operation for all gores. Ensure radial seams are not overlapped by gore material. Move whipped gores rapidly back and forth across packing table (Figure 20).

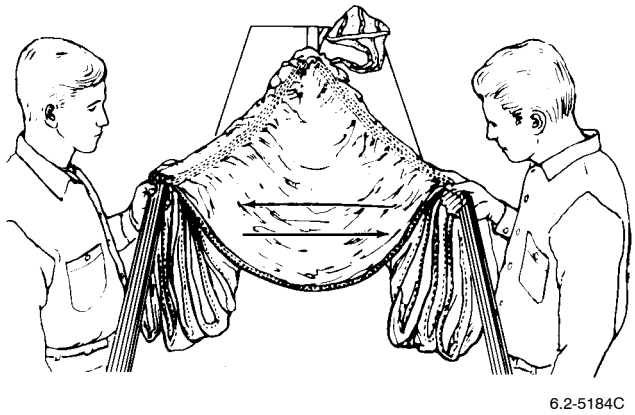


Figure 20. Continue Whipping Operation

d. The two groups of suspension lines shall be stretched to the edges of the packing table with folded gores hanging over sides. Packer and helper shall grasp all folds at the outer edges on skirt hem and hold suspension line groups at edges of packing table. Packer and helper shall simultaneously move folds up and down rapidly in a whipping motion.

e. Packer shall flap top gore up and down at skirt hem center as helper holds bottom gore at skirt hem center (Figure 21).

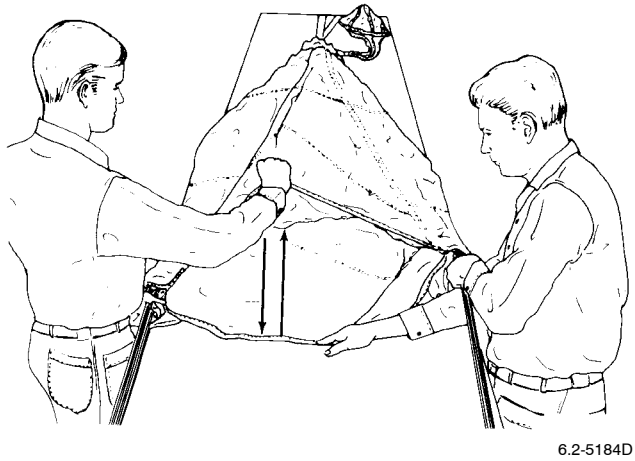


Figure 21. Packer Shall Flap Top Gore

f. On signal, packer and helper shall draw their respective gores, at skirt hem centers, towards table edge while at same time bringing suspension line groups to center of packing table (Figure 22).

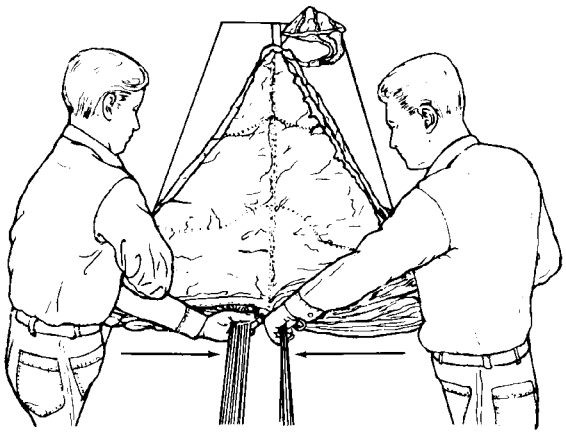


Figure 22. Draw Respective Gores to Center

g. Insert suspension line groups into their respective slots in small line separator and place shot bag on lines. Packer shall place second shot bag across skirt hem on left side of suspension lines.

h. Helper shall rotate all gores as a group, except bottom gore, from helper's side of packing table (Figure 23).

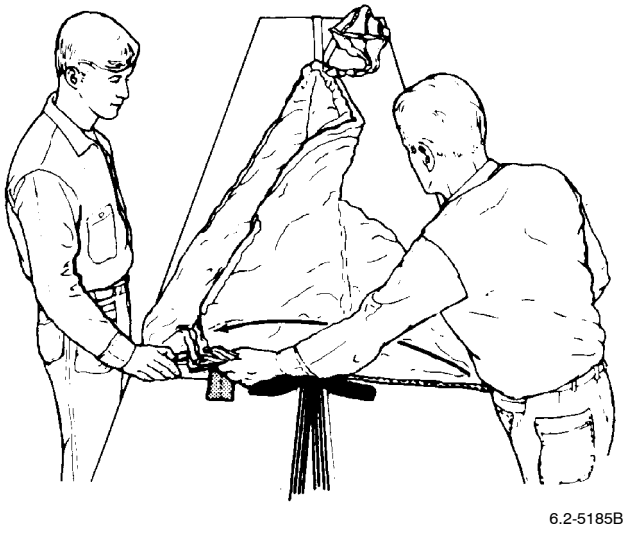


Figure 23. Helper Rotate All Gores to Packer's Side

i. Helper shall straighten and smooth bottom gore on helper's side of packing table throughout its length to apex (Figure 24).

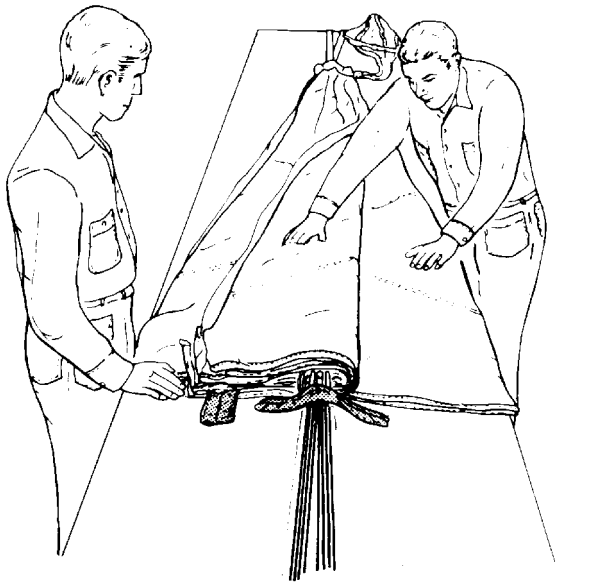


Figure 24. Helper Shall Straighten and Smooth Gores

j. Packer shall return folded gores above shot bag to helper's side of packing table. Helper shall straighten and smooth each gore and place the shot bag on skirt hem (Figure 25).

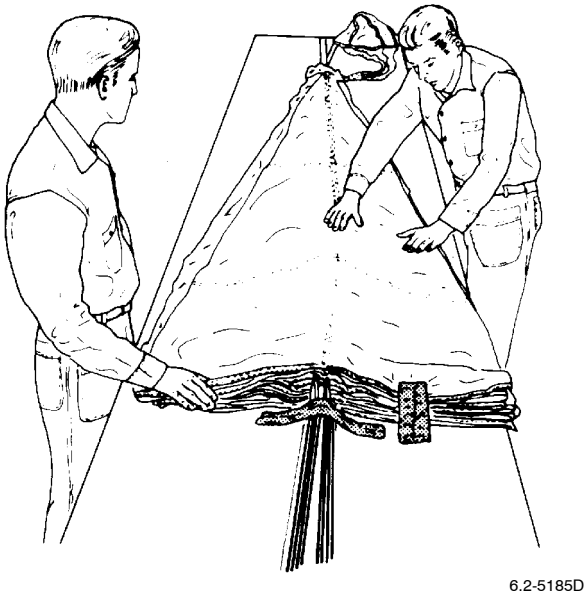


Figure 25. Packer Return Folded Gores Above Shot Bag

k. Packer shall rotate all gores as a group, except bottom gore, from packer's side to helper's side of packing table (Figure 26).

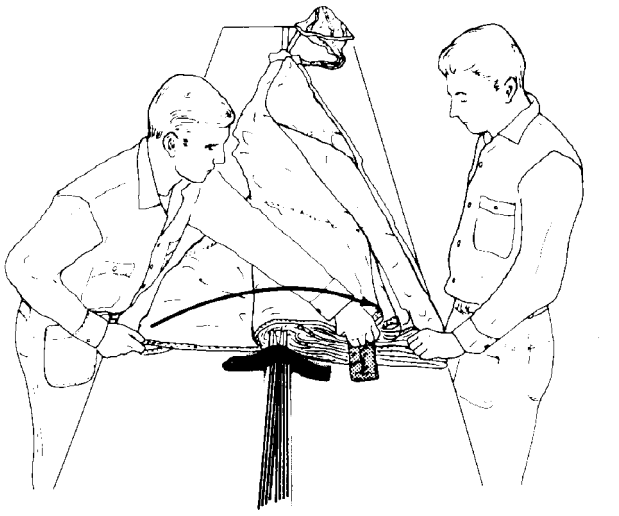


Figure 26. Packer Shall Rotate All Gores

l. Packer shall straighten and smooth bottom gore on packer's side of packing table throughout its length to apex (Figure 27).

Figure 27. Packer Shall Straighten and Smooth Gores

m. Helper shall return folded gores above shot bag to packer's side of packing table. Packer shall straighten and smooth each gore. Remove shot bag from canopy (Figure 28).

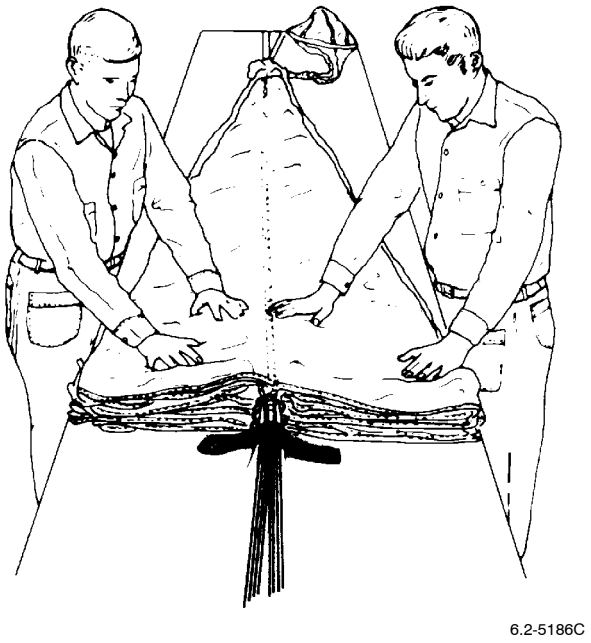


Figure 28. Helper Shall Return Gores Above Shot Bag

n. Packer and helper shall grasp skirt hem at midsection of gores and rotate towards suspension lines (Figure 29).

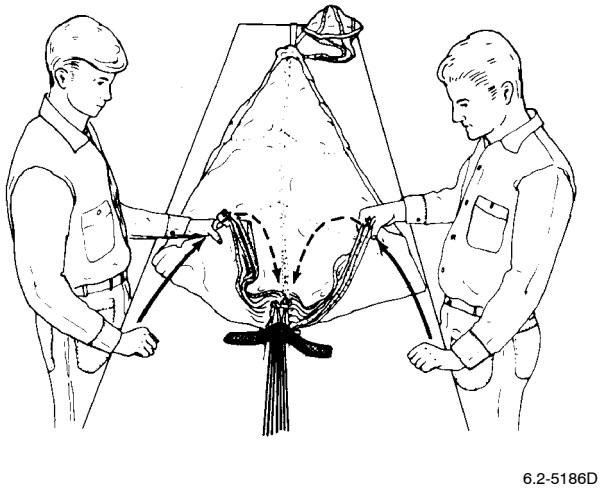


Figure 29. Grasp Skirt Hem and Rotate Towards Suspension Lines

o. Packer and helper shall grasp the bottommost gore fold and extend outwards, aligning the edge of the skirt hem and suspension line "V" tab reinforcements. The remaining 13 gores shall be aligned in a similar manner. Ensure that all "V" tab reinforcements face same direction and that 14 gores have been counted on each side (Figure 30).

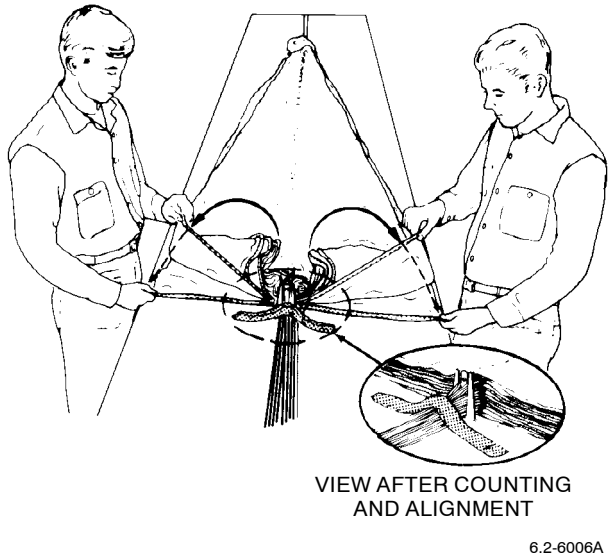


Figure 30. Grasp Gore Folds and Extend Outwards

p. Canopy shall be folded by packer placing his hand on helper's side of skirt hem at center. Helper shall rotate gores to center of canopy (Figure 31).

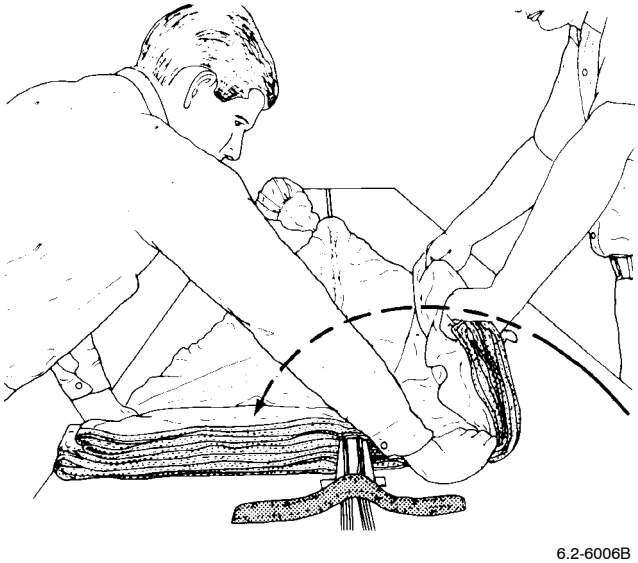


Figure 31. Helper Rotate Gores to Center of Canopy

q. Helper shall place his hand on packer's side of skirt hem at center. Packer shall rotate gores to center of canopy. The two groups of folded gores shall butt together. Note that canopy cannot be folded throughout entire length but breaks about two-thirds the distance to apex (Figure 32).

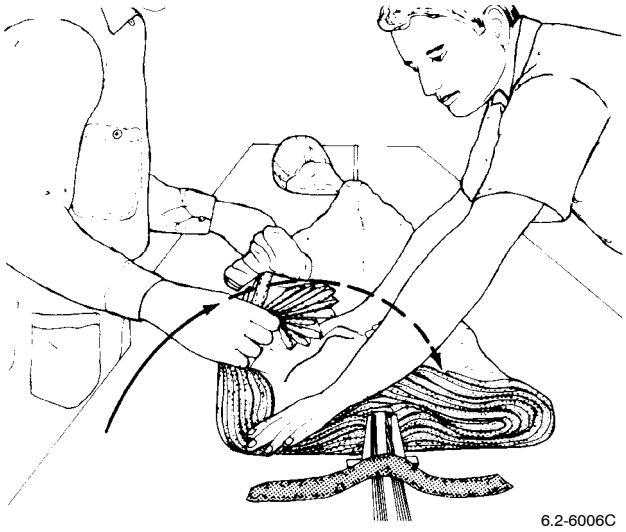


Figure 32. Packer Rotate Gores to Center of Canopy

r. Place one shot bag slightly behind skirt hem and another on middle of canopy, place pilot parachute on top of canopy. Remove small line separator (Figure 33).

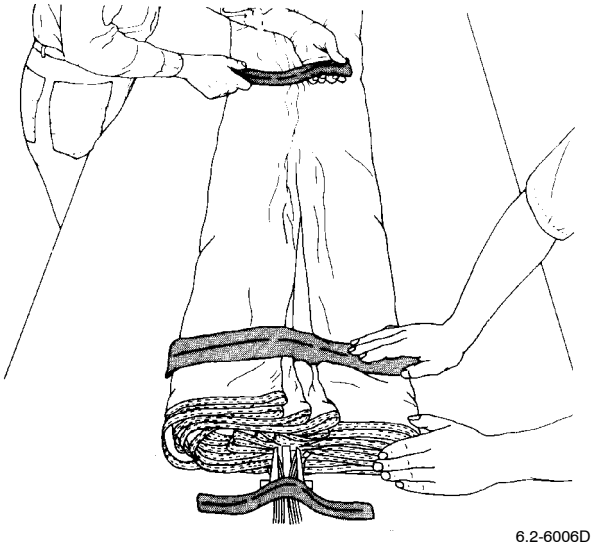


Figure 33. Placement of Shot Bags

s. Release tension from canopy and remove tension strap.

20. STOWAGE OF SUSPENSION LINES WITHOUT AUTOMATIC PARACHUTE RIPCORD RELEASE.

NOTE

Tie off all tackings with a surgeon's knot followed by a square knot and a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Remove connector links from tension hooks and remove tension hooks from packing table.

b. Place connector links on centerline of container above second metal stiffener from top edge. Tack connector links to cloth on top of second metal stiffener with one turn of size 3 thread, single and waxed, or one turn of size FF thread, doubled and waxed; tie off (Figure 34).

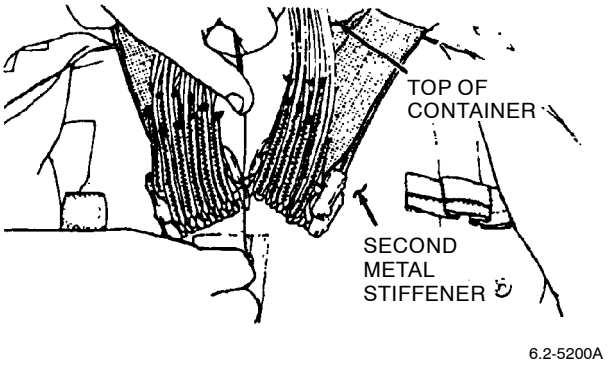


Figure 34. Tacking of Connector Links

c. Packer shall grasp both groups of suspension lines in his left hand 21 ± 3-in. from connector links to make first bight. Adjustment in this measurement may be necessary to obtain the required 21 ± 3-in. between the last stow and canopy skirt hem specified in step l. Ensure there are equal amounts of suspension line in both groups, from connector links to hand. Canopy shall be drawn along packing table only in enough lengths to permit each bight to be formed (Figure 35).

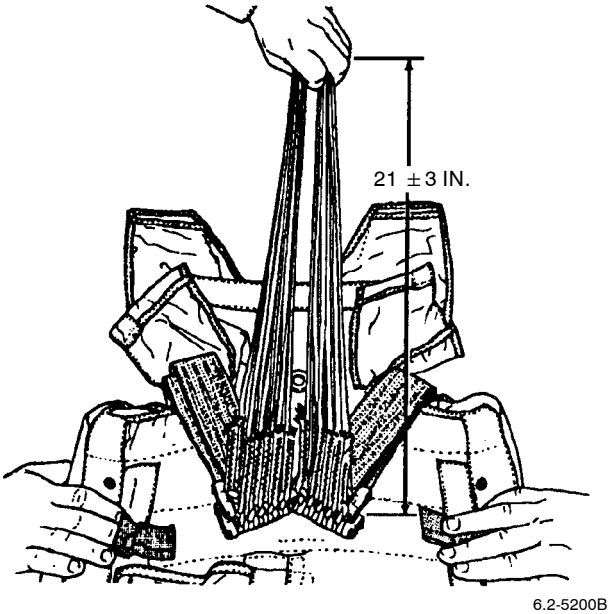


Figure 35. Grasp Suspension Lines in Left Hand

d. Packer shall form first bight in suspension lines over hesitator loop farthest from canopy and closest to helper. Draw bight 3/8-in. past hesitator loop edge (measured from loop edge to end of hook). Helper shall assist packer during stowing operation by holding pack steady and by holding completed bight while next bight is being formed (Figure 36).

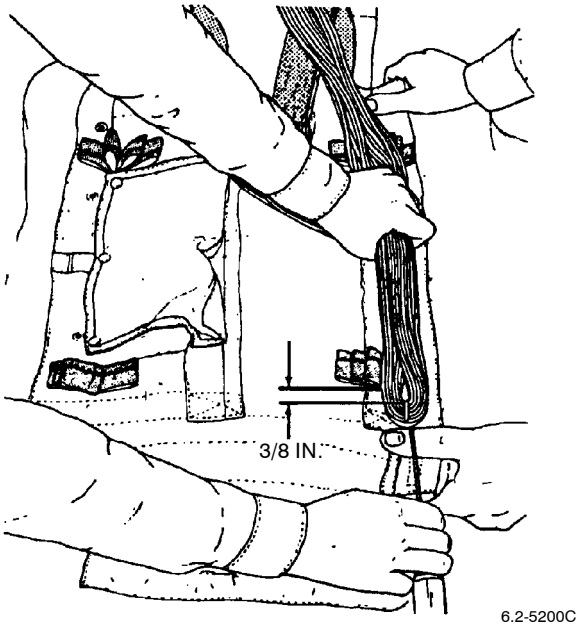


Figure 36. Packer Shall Form First Bight

e. Keeping light tension on suspension line bight with packing hook, reposition and deposit bight in front of hesitator loop. Carefully withdraw packing hook (Figure 37).

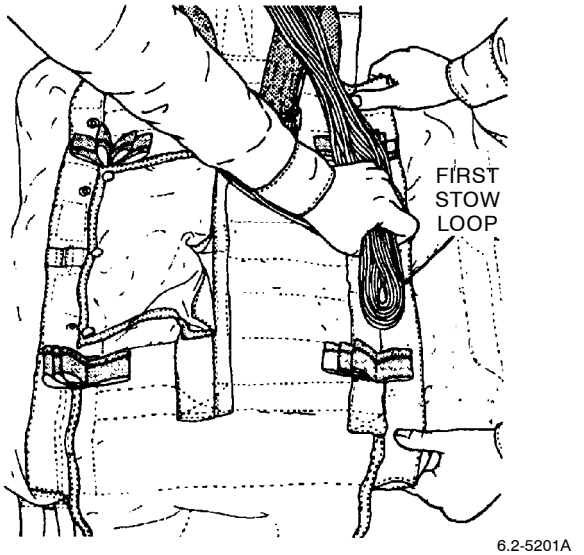


Figure 37. Keeping Light Tension on First Bight

f. Packer shall engage hook in suspension lines and draw bight thru hesitator loop (Figure 38).

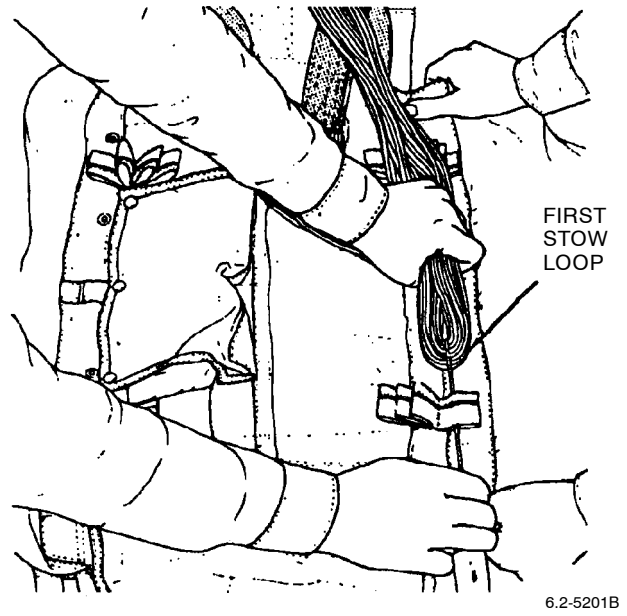


Figure 38. Packer Shall Engage Hook

g. After stowing bight, there shall be 3/8-in. clearance between packing hook and hesitator loop (Figure 39).

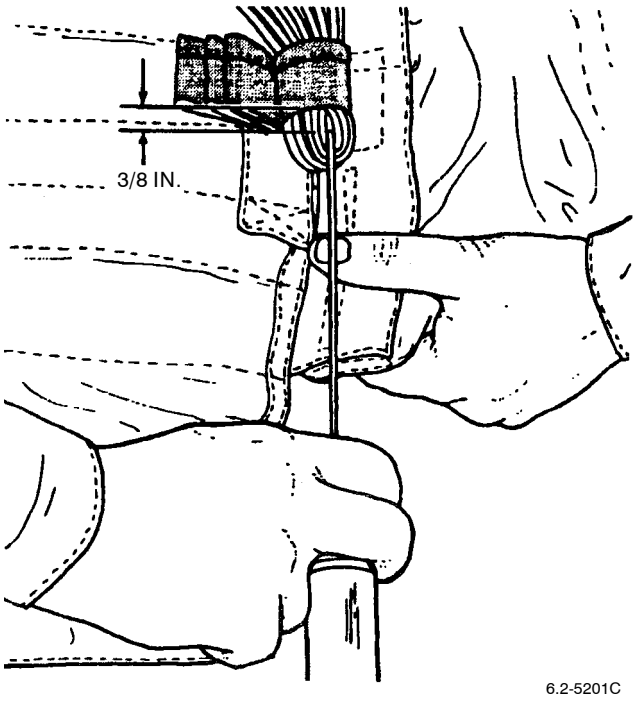


Figure 39. 3/8-in. Stowing Bight

h. Packer shall draw suspension lines and folded canopy toward container to form another bight. Second bight shall be drawn thru hesitator loop opposite first one. Maintain 3/8-in. clearance between packing hook and hesitator loop (Figure 40).

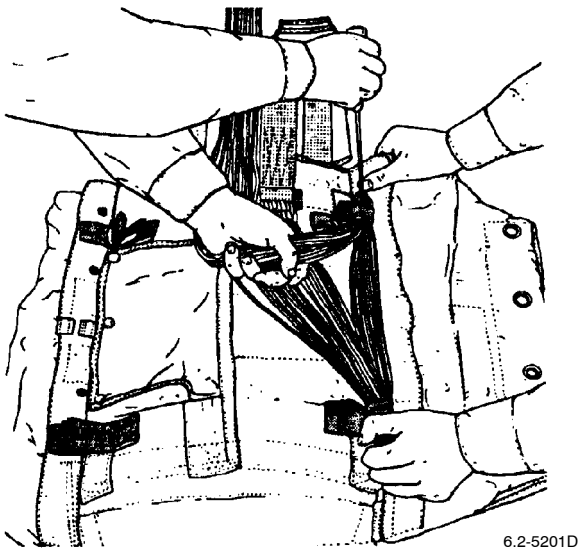


Figure 40. Form the Second Bight

i. Third bight is formed in same manner as in preceding steps. Bight is pulled thru hesitator loop next to first stow. Stow bight 4 thru 8 in same manner.

j. Cross suspension lines over automatic release pocket to opposite side of container and stow bight 9 (Figure 41).

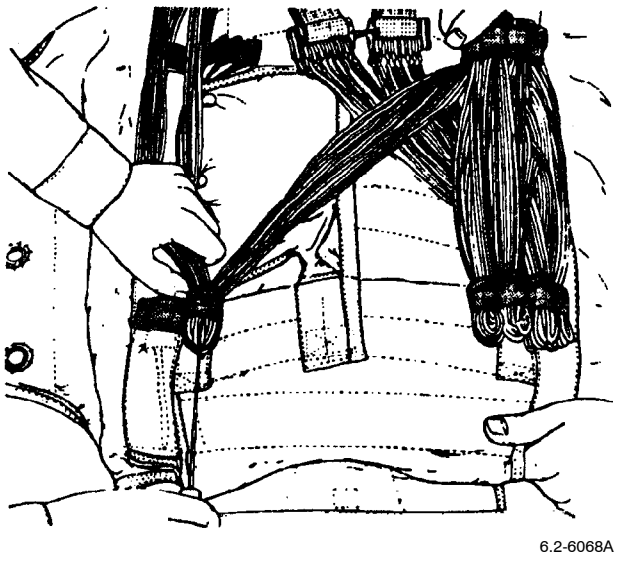


Figure 41. Cross Suspension Lines Over Automatic Release Pocket

k. Continue stowing suspension line bights in hesitator loops 10 thru 15, maintaining 3/8-in. clearance between packing hook and hesitator loops. Hesitator loops 15 and 16 may or may not be used as required to achieve dimensional callout in step l. As each stow is completed, ensure suspension lines are not rotated or loose and there are no suspension lines left out of hesitator loops, straighten all hesitator loops using temporary locking pin (Figure 42).

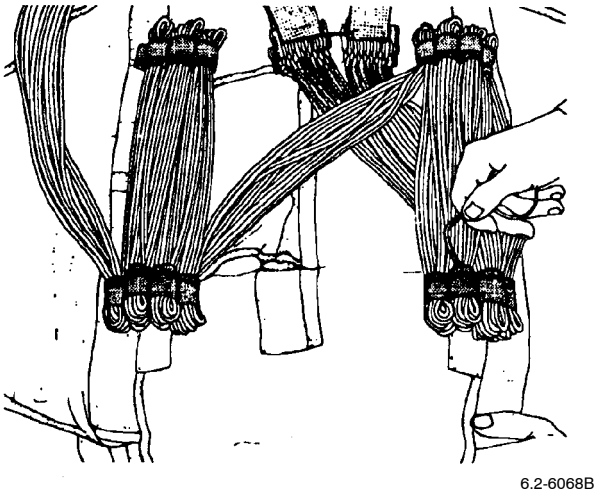


Figure 42. Continue to Stow Remaining Bights

l. When suspensions are in all hesitator loops, there shall be 21 ±3-in. between last stow and canopy skirt hem. Remove shot bags from canopy (Figure 43). (QA)

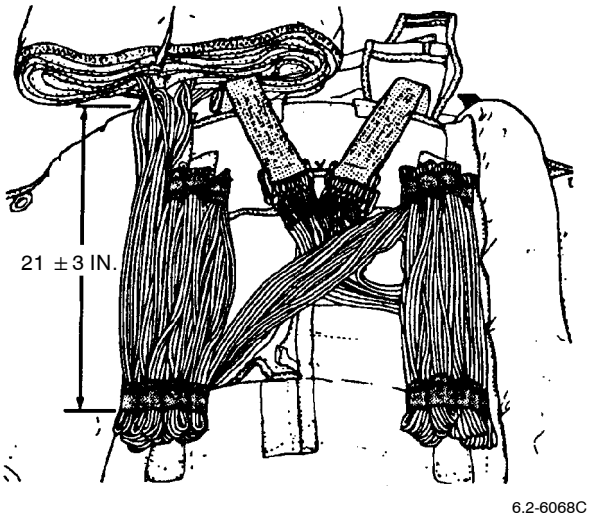


Figure 43. 21 ±3-in. Between Last Stow and Canopy Skirt

m. Place riser protector flaps on top of risers (Figure 44).

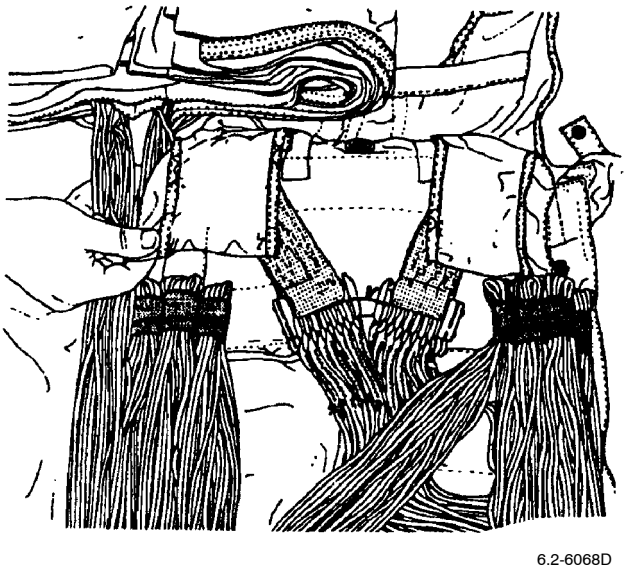


Figure 44. Placement of Protector Flaps

21. STOWAGE OF SUSPENSION LINES WITH AUTOMATIC PARACHUTE RIPCORD RELEASE INSTALLED.

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Remove connector links from tension hooks and remove tension hooks from packing table.

b. Place connector links off center on packer and helper's side, on top of second metal stiffener from top edge. Connector links should be off center just enough to prevent left connector links from hitting against ripcord release aneroid. Tack each connector links to cloth above second metal stiffener using one turn size 3 thread, single and waxed, or one turn size FF thread, doubled and waxed; tie off (Figure 45).

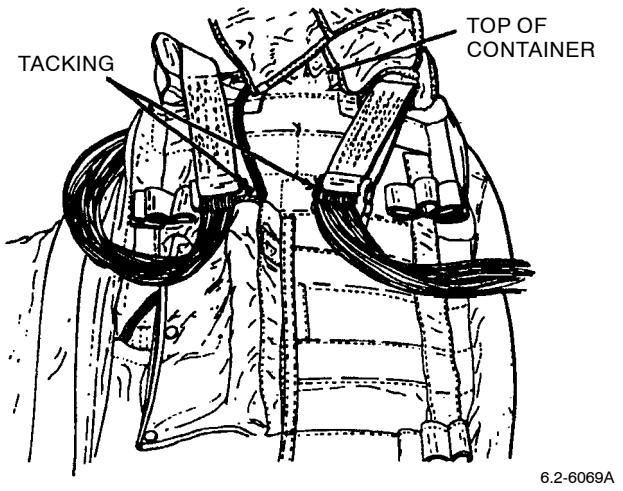


Figure 45. Place of Connector Links

c. Packer shall grasp both groups of suspension lines in his left hand 21 ± 3-in. from connector links to make first bight. Adjustment in this measurement may be necessary to obtain required inches between last stow and canopy skirt hem specified in step l. Ensure there are equal amounts of suspension line in both groups, from connector links to hand. Canopy shall be drawn along packing table only enough to permit each bight to be formed (Figure 46).

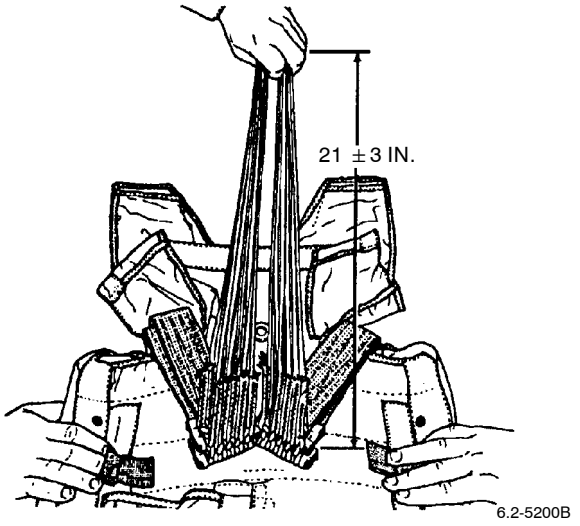


Figure 46. Grasp Suspension Lines in Left Hand

d. Packer shall form first bight in suspension lines over hesitator loop farthest from canopy and closest to helper. Draw bight 3/8-in. past hesitator loop edge (measured from loop edge to end of hook). Helper shall assist packer during stowing operation by holding pack steady and by holding completed bight while next bight is being formed (Figure 47).

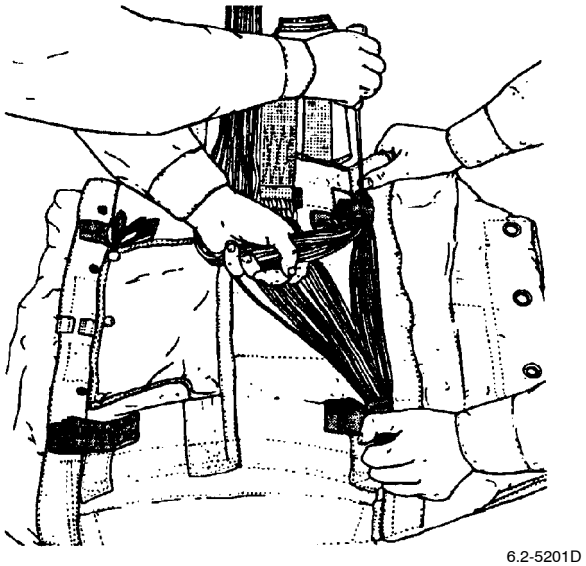


Figure 47. Packer Shall Form First Bight

e. Keeping light tension on suspension line bight with packing hook, reposition and deposit bight in front of hesitator loop. Carefully withdraw packing hook (Figure 48).

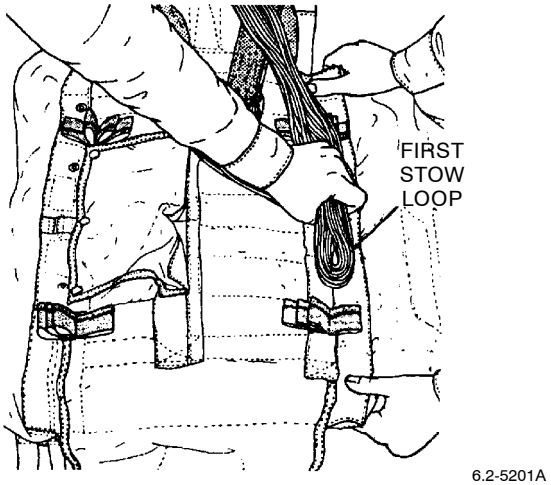


Figure 48. Keeping Light Tension on First Bight

f. Packer shall engage hook in suspension lines and draw bight thru hesitator loop (Figure 49).

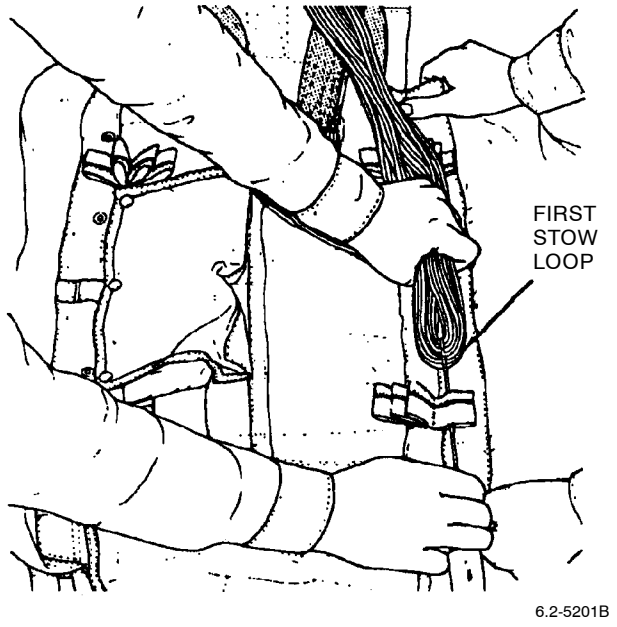


Figure 49. Packer Shall Engage Hook

g. After stowing bight, there shall be 3/8-in. clearance between packing hook and hesitator loop (Figure 50).

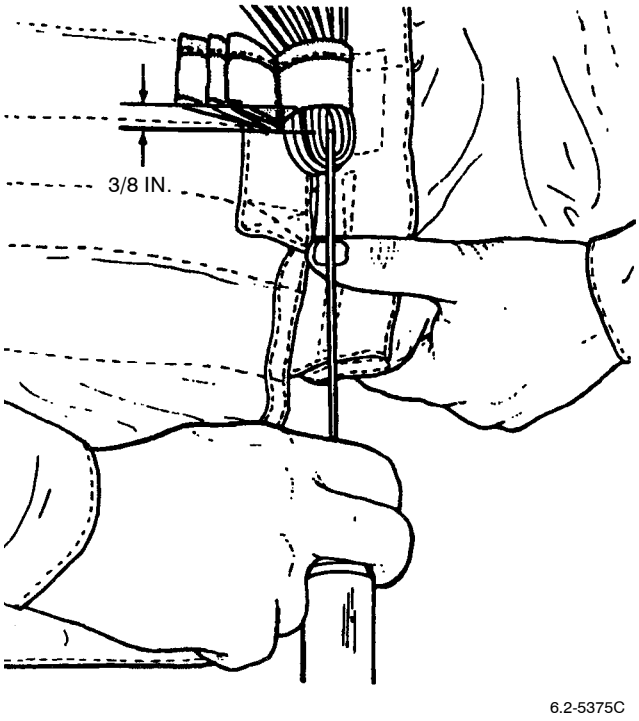


Figure 50. 3/8-in. Stowing Bight

h. Packer shall draw suspension lines and folded canopy toward cantainer to form another bight. Second bight shall be drawn thru hesitator loop opposite first one. Maintain 3/8-in. clearance between packing hook and hesitator loop (Figure 51).

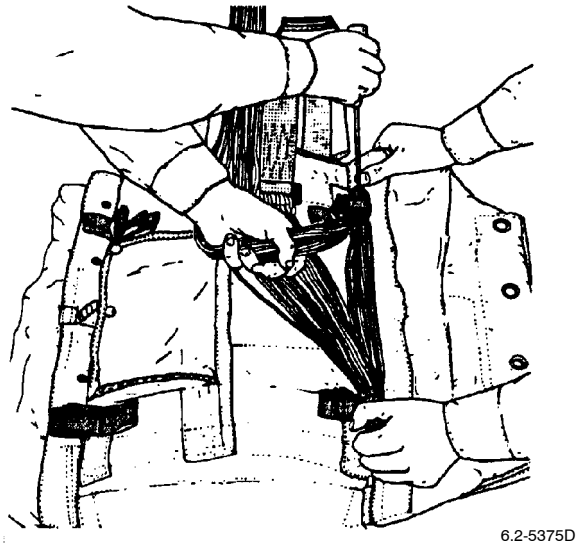


Figure 51. Form Second Bight

i. Third bight is formed in the same manner as in the preceding steps. Bight is pulled thru hesitator loop next to first stow. Stow bights 4 thru 8 in same manner.

j. Cross suspension lines over automatic release pocket to opposite side of container and stow bight 9 (Figure 52).

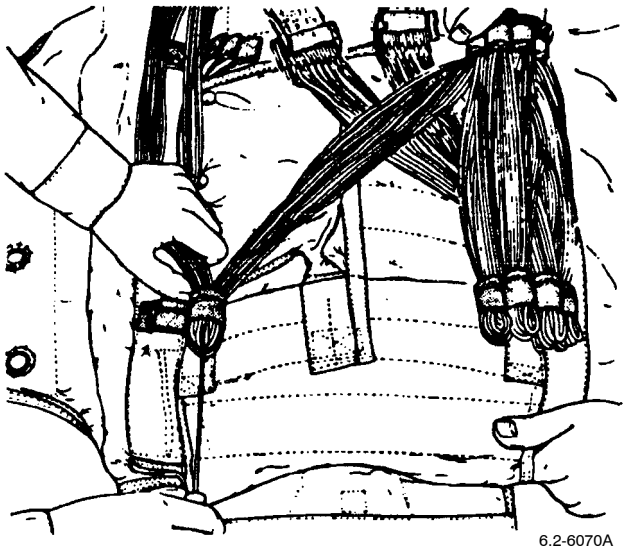


Figure 52. Cross Suspension Lines Over Automatic Release Pocket

k. Continue stowing suspension line bights in hesitator loops 10 thru 15, maintaining 3/8-in. clearance between packing hook and hesitator loop. Hesitator loops 15 and 16 may or may not be used as required to achieve dimensional callout in steps h and l. As each stow is completed, ensure suspension lines are not rotated or loose and there are no suspension lines left out of hesitator loops. Straighten all hesitator loops using temporary locking pin (Figure 53).

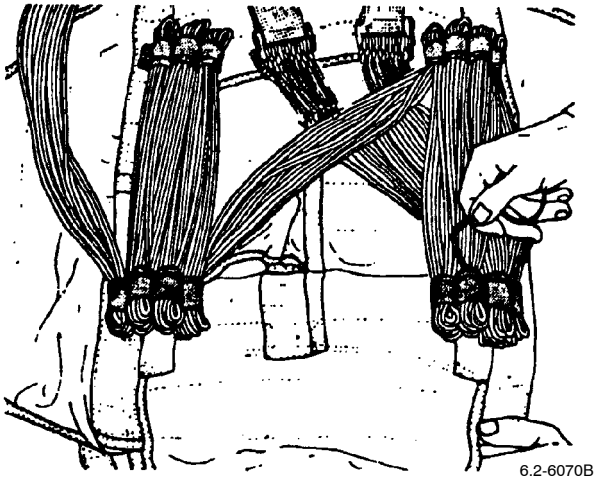


Figure 53. Continue To Stow Remaining Bights

l. When suspension lines are in all hesitator loops, there shall be 21 ±3-in. between last stow and canopy skirt hem. Remove shot bags from canopy (Figure 54). (QA)

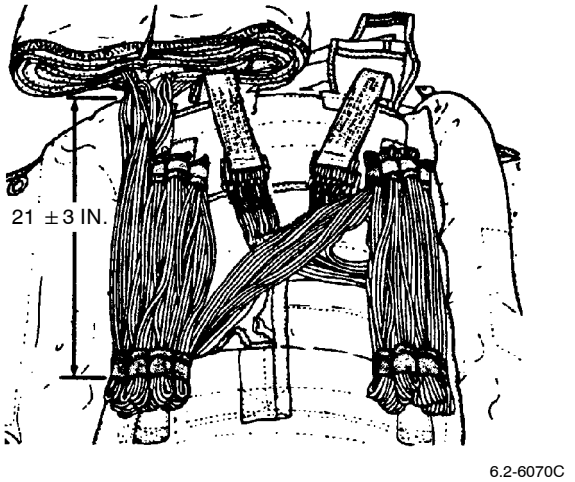


Figure 54. 21 ± 3-in. Between Last Stow and Canopy Skirt

m. Place lift web protection flaps on top of lift webs (Figure 55).

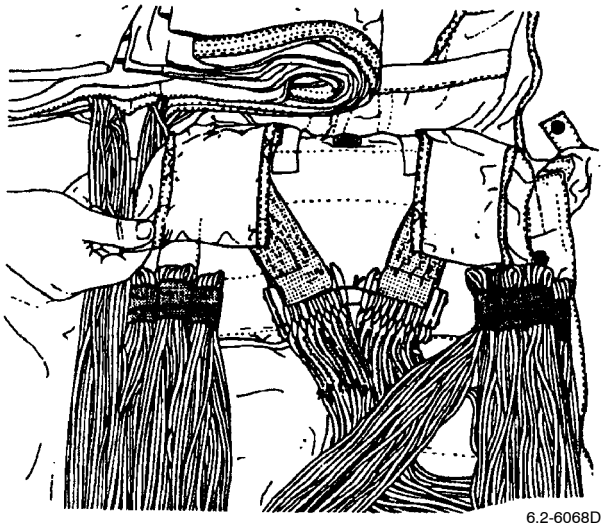


Figure 55. Placement of Protection Flaps

22. STOWAGE OF CANOPY IN CONTAINER.

a. Seven folds shall be made when stowing canopy. Use the following illustration as a guide while stowing canopy (Figure 56).

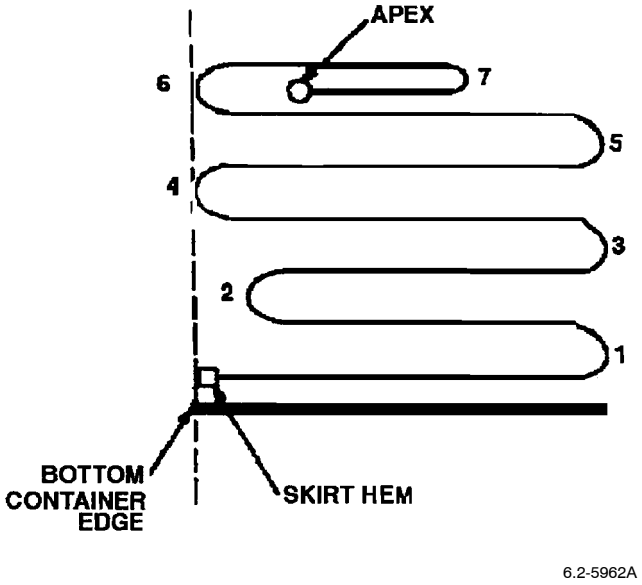


Figure 56. Making of Seven Folds

b. Helper shall place long bar over suspension lines at center of container. Packer shall grasp canopy skirt hem on each side of suspension lines and draw canopy across container (Figure 57).

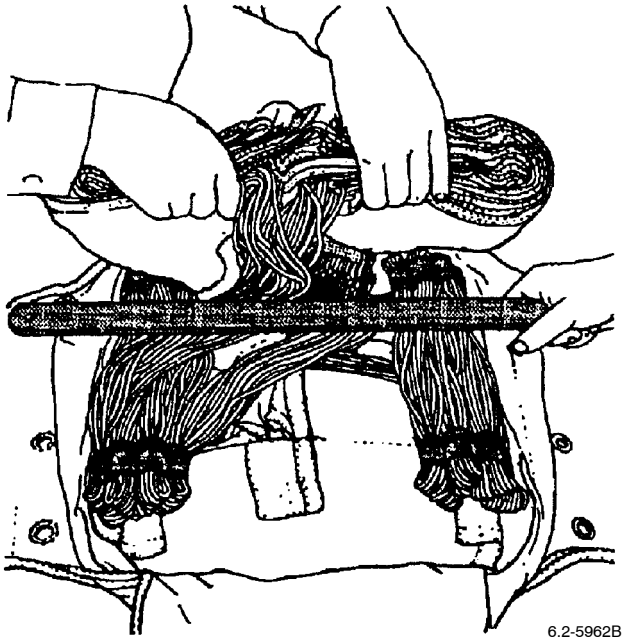


Figure 57. Placement of Long Bar

c. Skirt hem shall be aligned with bottom container edge. Allow folded canopy to spread about 2-in. over sides of container (Figure 58).

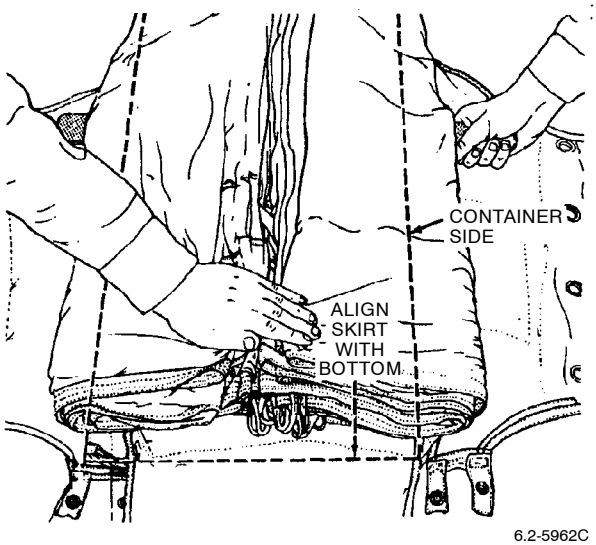


Figure 58. Alignment of Skirt Hem

d. To make first and second folds, helper shall remove bar from between canopy and container and place it on top of canopy, parallel with top container edge. Packer shall grasp canopy about one container length from long bar and draw it across container (Figure 59).

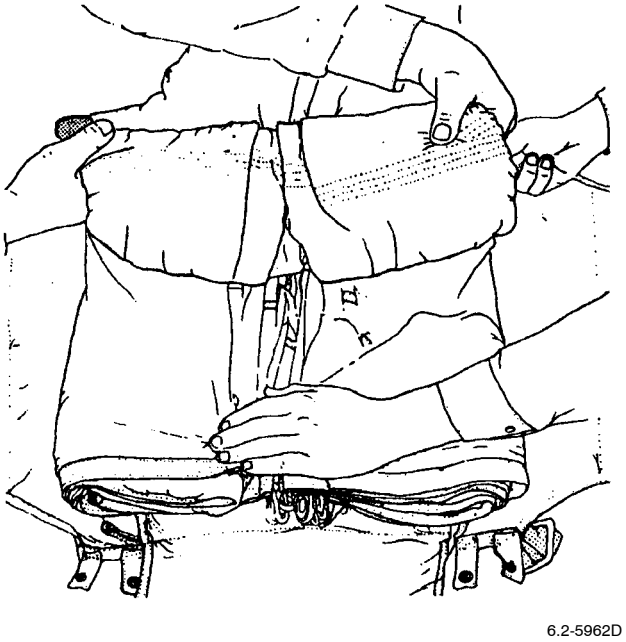


Figure 59. Making of First and Second Folds

e. Second fold shall be positioned slightly behind skirt hem. Sides of canopy shall spread about 2-in. over sides of container (Figure 60).

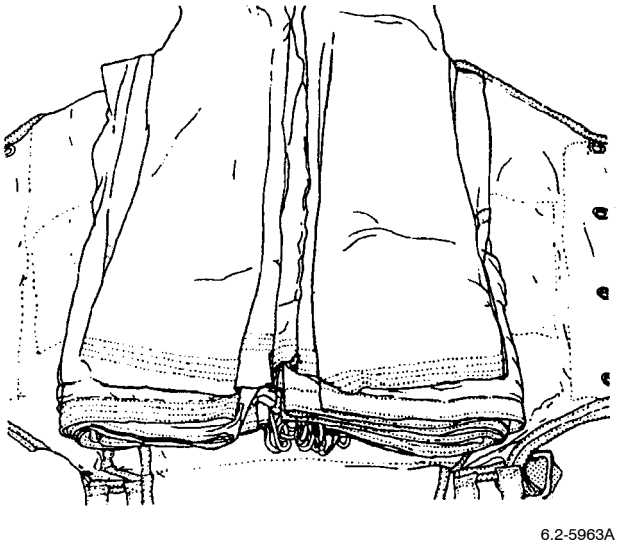


Figure 60. Positioning of Second Fold

f. To make third and fourth folds, helper shall use long bar in same manner as with first and second folds. Fourth fold is extended to align with skirt hem (Figure 61).

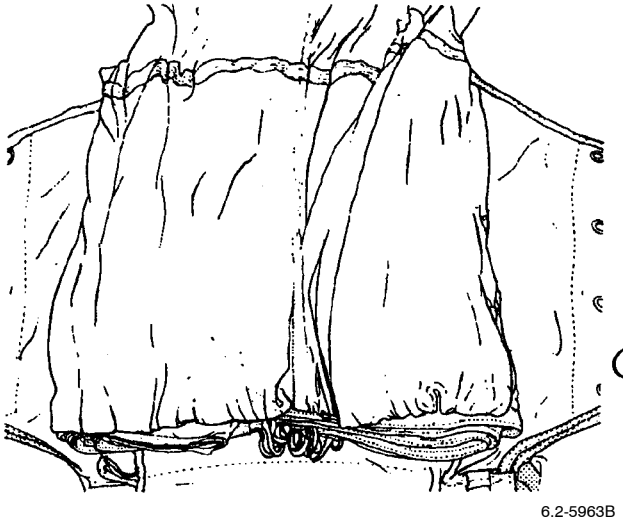


Figure 61. Making of Third and Fourth Folds

g. Continue accordion folding rest of canopy into container, keeping about 2-in. canopy spread over sides of container. As apex of canopy is drawn close to container, pilot parachute shall be placed back onto packing table.

h. Position pilot parachute vertically on packing table and insert guide tube into grommet in crown of pilot parachute. Extend guide tube to bottom of pilot parachute and position over locking cone on spring base plate (Figure 62).

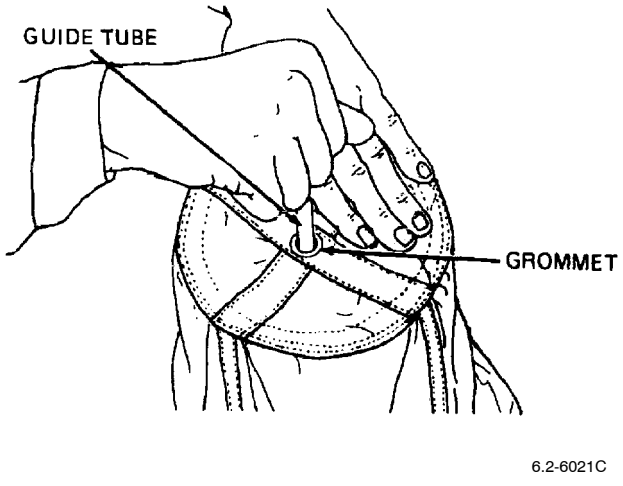


Figure 62. Position Pilot Parachute Vertically

i. Compress pilot parachute spring and remove guide tube from locking cone. Locking cone shall protrude thru grommet. Insert temporary locking pin in top of locking cone (Figure 63).

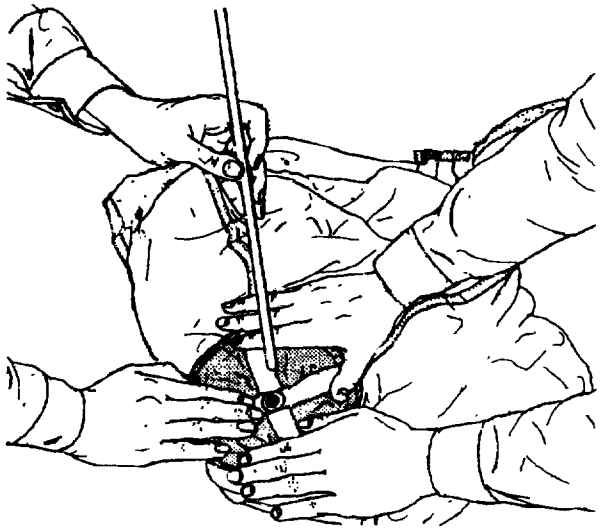


Figure 63. Compressing of Pilot Parachute Spring

WARNING

Ensure that pilot parachute cloth is not twisted around or entangled in compressed pilot parachute spring.

j. Remove any pilot parachute cloth twisted around or entangled in compressed spring.

k. Insert temporary locking pin plate into bottom hole of locking cone and then remove temporary locking pin from top hole of locking cone (Figure 64).

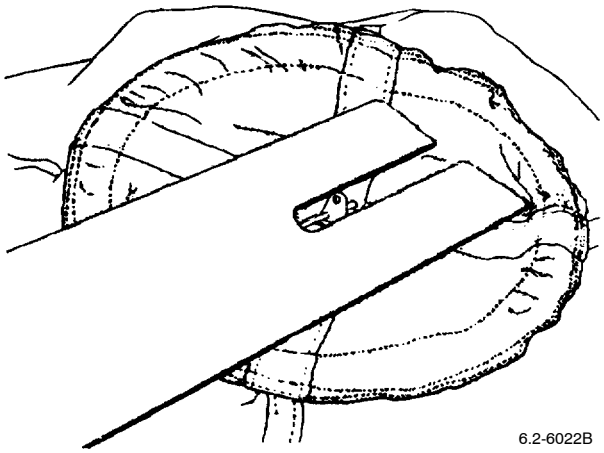


Figure 64. Inserting Temporary Locking Pin Plate

l. When not enough canopy remains to continue folding operation, canopy shall be folded under 9-in. from apex (Figure 65).

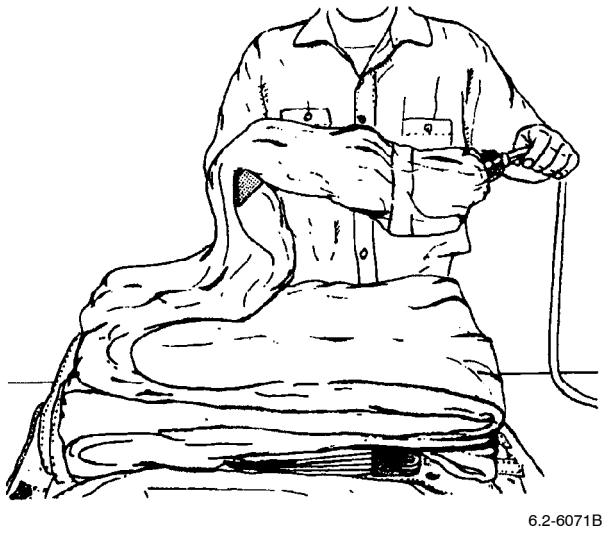


Figure 65. 9-in Fold Under From Apex

m. Folded under portion of canopy shall be positioned on top of canopy to form uppermost fold. Adjust canopy so folds are neat and square (Figure 66).

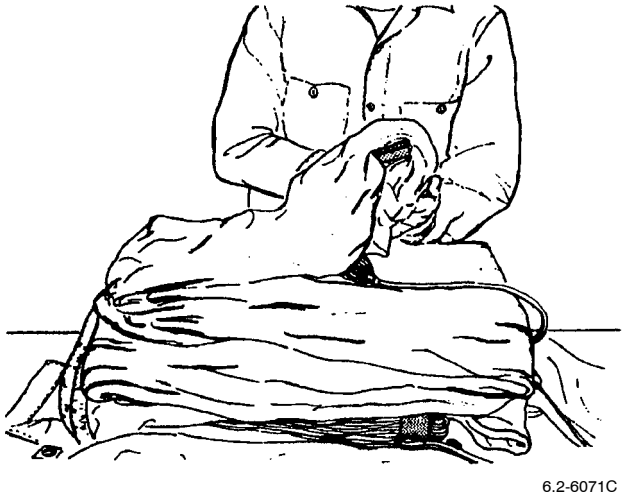


Figure 66. Folded Under Positioning

n. Inspect pilot parachute connector strap and remove entanglements.

o. Rotate container 90-degrees counterclockwise.

p. Place pilot parachute on top of canopy with pin plate positioned on helper's side of table. Align pilot parachute locking cone with second side flap grommet from bottom end of container. Roll pilot parachute cloth under outer edge of crown (Figure 67).

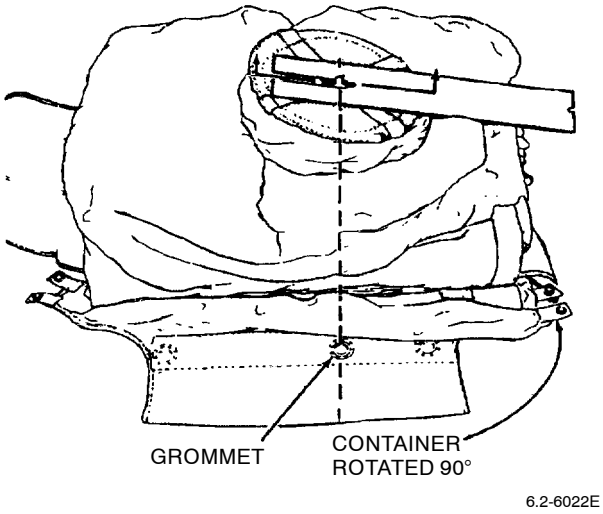


Figure 67. Placement of Pilot Parachute

23. CLOSING CONTAINER WITHOUT AUTOMATIC PARACHUTE RIPCORD RELEASE INSTALLED.

a. Packer and helper shall hold canopy and compressed pilot parachute in place and pull container side flap with locking cone over canopy. Place second grommet from container bottom over locking cone in pilot parachute (Figure 68).

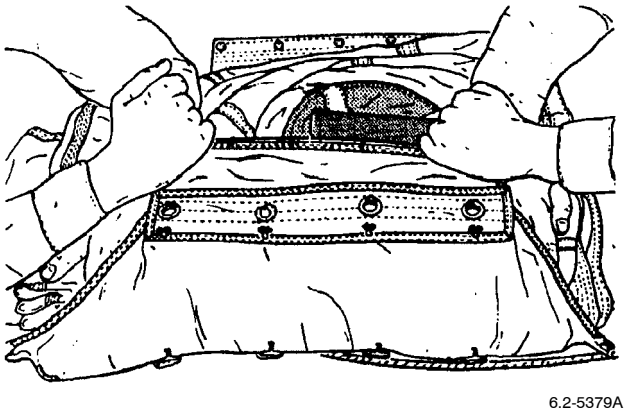


Figure 68. Holding Canopy and Compressed Pilot Parachute in Place

b. Packer and helper shall pull container side flap with grommets over canopy while holding side flap with locking cone in place. Keep canopy and pilot parachute movement to a minimum (Figure 69).

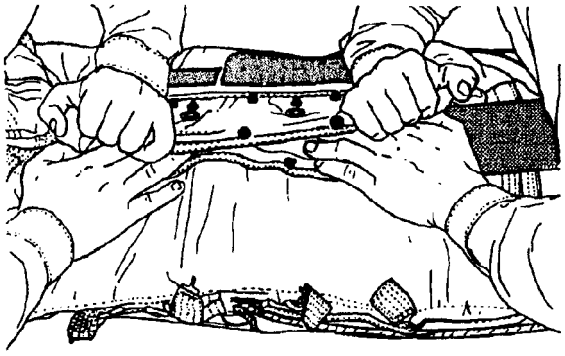


Figure 69. Pulling Over of Container Flap with Grommets

c. Place grommets over locking cones and insert temporary locking pins toward top end flap (Figure 70).

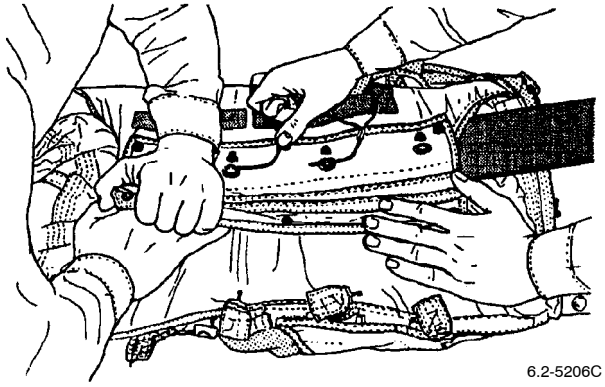


Figure 70. Place Grommets Over Locking Cones

d. Remove temporary locking pin plate from bottom hole in pilot parachute locking cone and straighten canopy folds at both ends of container (Figure 71).

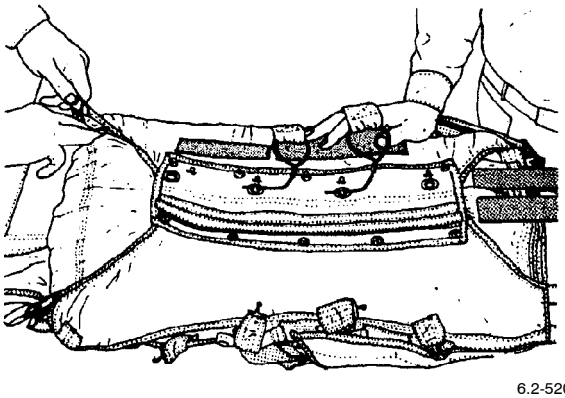


Figure 71. Removal of Temporary Locking Pin Plate

e. Packer shall tuck top container end flap under side flaps using two long bars inserted in pockets (Figure 72).

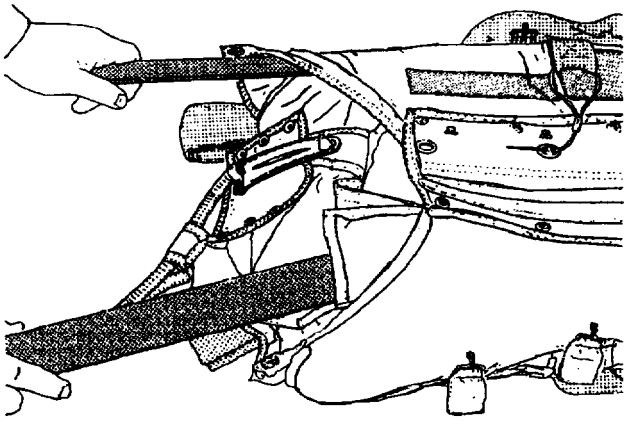


Figure 72. Tuck Top Container End Flap Under

f. Place side flap grommets over top end flap locking cone. Insert temporary locking pin toward top end flap (Figure 73).

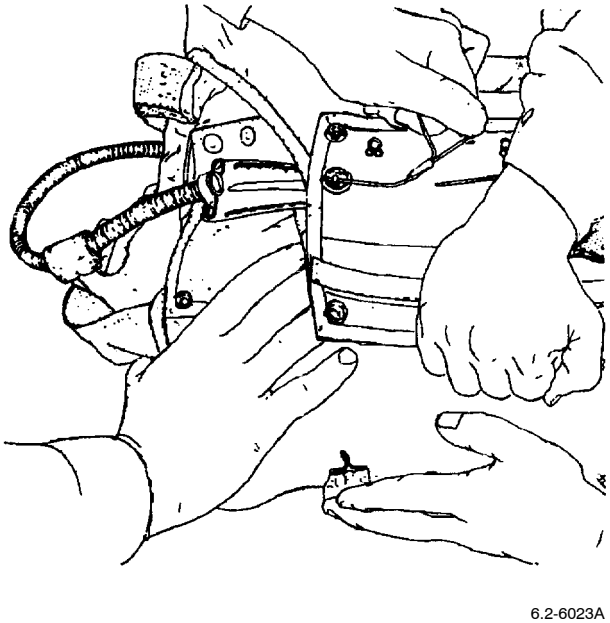


Figure 73. Place Side Flap Grommets Over Top End Flap

g. Place side flap grommets over bottom end flap locking cone. Insert temporary locking pin toward top end flap (Figure 74).

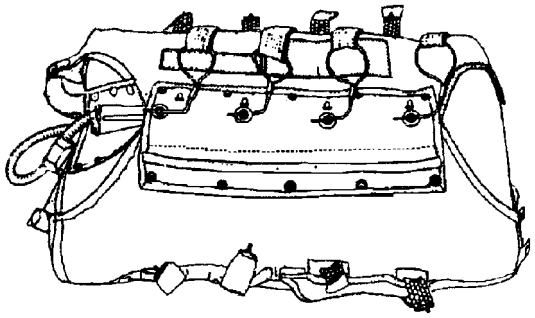


Figure 74. Place Side Flap Grommets Over Bottom End Flap

h. Push cover flaps into container using packing fid inserted into pockets. Remove wrinkles and smooth corners of container using packing fid (Figure 75).

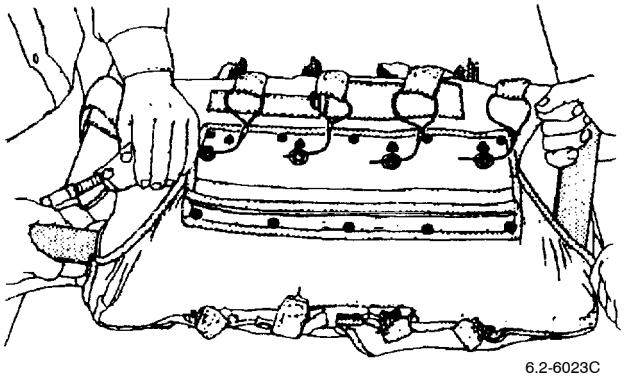


Figure 75. Push Cover Flaps Into Container

i. Insert ripcord cable into ripcord housing (Figure 76).

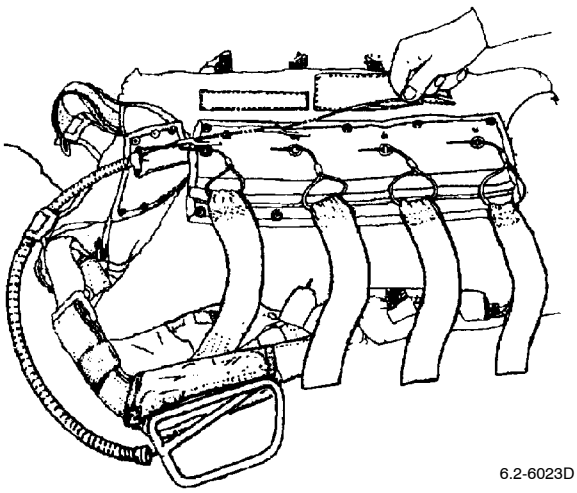


Figure 76. Insert Ripcord Cable

WARNING

Use of ripcord pins as an alignment aid during installation may cause bending of pins and result in excessive pull forces.

j. Helper shall hold side flap grommets over locking cone nearest packer. Helper then removes temporary locking pin, as packer, at same time, inserts top ripcord pin (Figure 77).

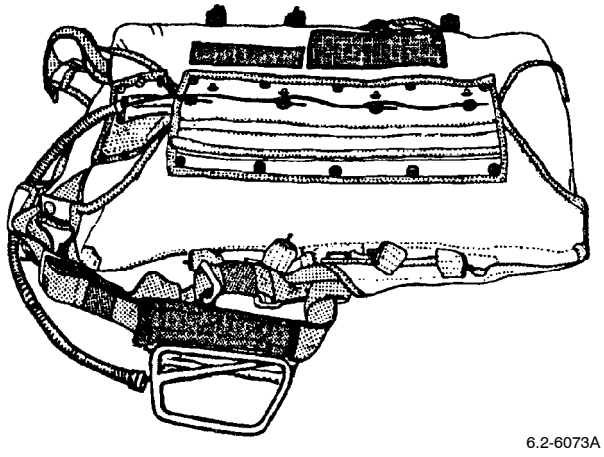


Figure 77. Insert Remaining Ripcord Pins

k. Working from packer's end to helper's end, remove temporary locking pins and at same time insert ripcord pins (Figure 78).

WARNING

Ripcord pins must be centered in locking cones.

l. Ensure ripcord pins are centered in locking cones so that shoulder of ripcord pin is not jammed against locking cone, but extends more than 1/2-in. beyond base of cone (Figure 78).

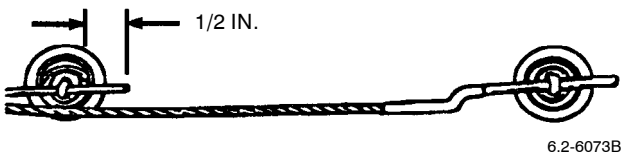


Figure 78. Center Ripcord Pins

m. Attach container spring opening assemblies to container eyes (Figure 79).

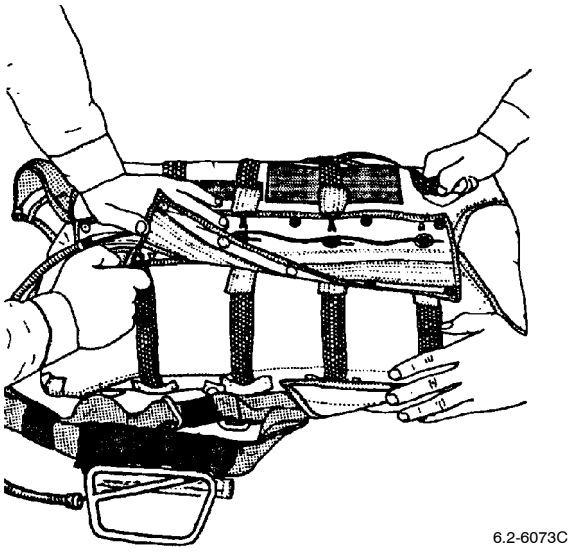


Figure 79. Attach Spring Opening Assemblies

24. CLOSING CONTAINER WITH AUTOMATIC PARACHUTE RIPCORD RELEASE INSTALLED.

a. Packer and helper shall hold canopy and compressed pilot parachute in place and pull container side flap with locking cone over canopy. Place second grommet from container bottom over locking cone in pilot parachute (Figure 80).

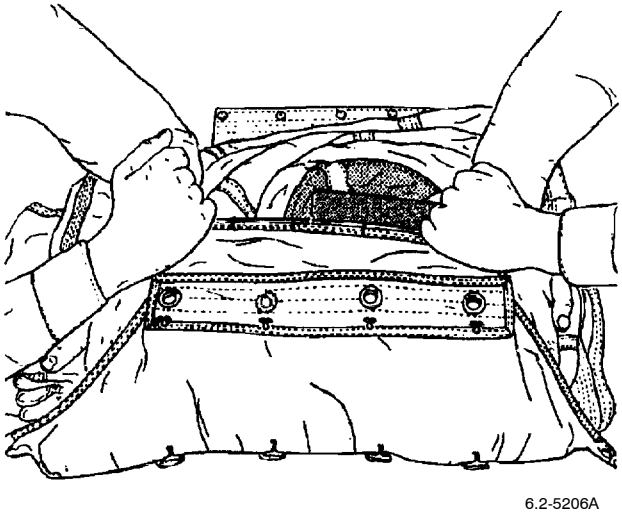


Figure 80. Holding Canopy and Compressed Pilot Parachute in Place

b. Packer and helper shall pull container side flap with grommets over canopy while holding side flap with locking cone in place. Keep canopy and pilot parachute movement to a minimum (Figure 81).

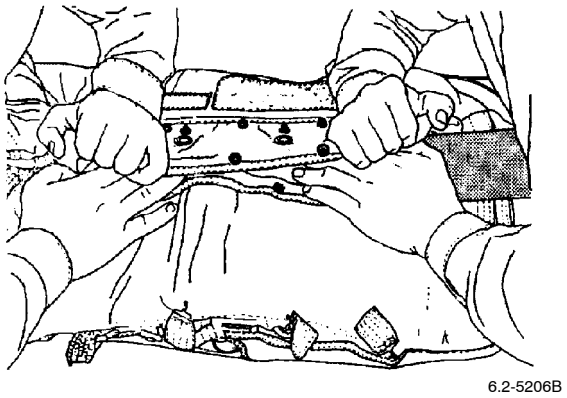


Figure 81. Pulling Over of Container Flap with Grommets

c. Place grommets over locking cones and insert temporary locking pins toward top end flap (Figure 82).

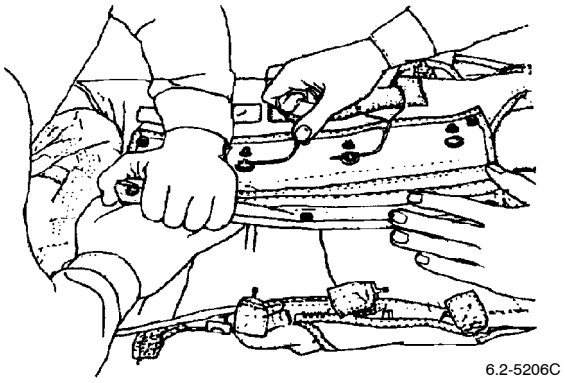


Figure 82. Place Grommets Over Locking Cones

d. Remove temporary locking pin plate from bottom hole in pilot parachute locking cone and straighten canopy folds at both ends of container (Figure 83).

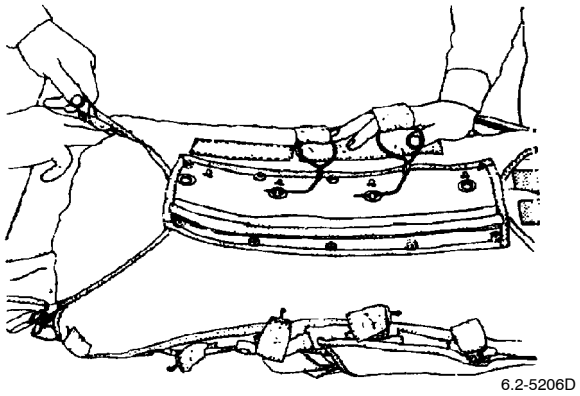


Figure 83. Removal of Temporary Locking Pin Plate

e. Packer shall tuck top container end flap under side flaps using two long bars inserted in pockets (Figure 84).

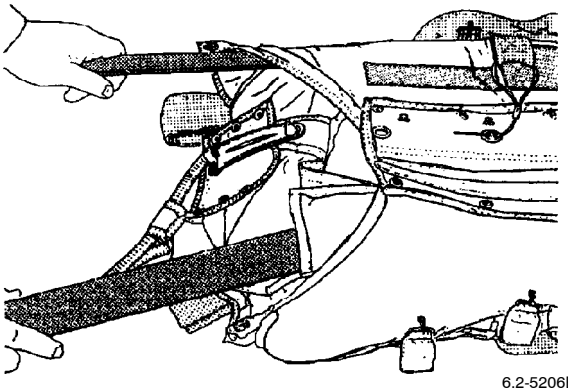


Figure 84. Tuck Top Container End Flap Under

f. Place side flap grommets over top end flap locking cone. Insert temporary locking pin toward top end flap (Figure 85).

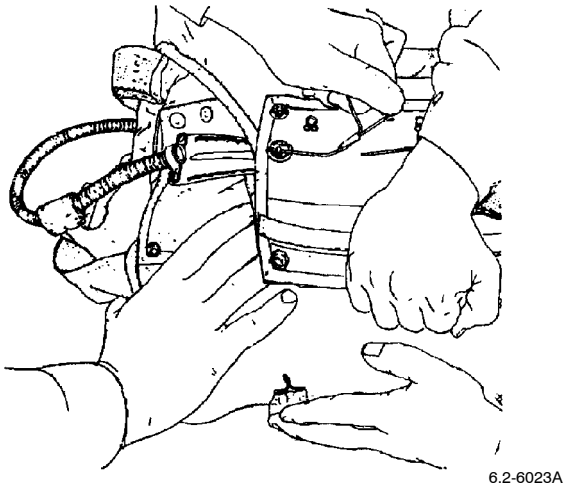


Figure 85. Place Side Flap Grommets Over Top End Flap

g. Place side flap grommets over bottom end flap locking cone. Insert temporary locking pin toward top end flap (Figure 86).

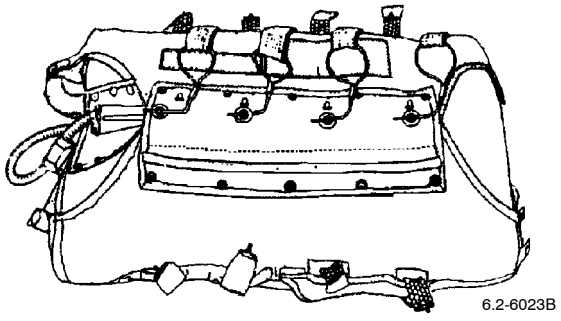


Figure 86. Place Side Flap Grommets Over Bottom End Flap

h. Push cover flaps into container using packing fid inserted into pockets. Remove wrinkles and smooth corners of container using packing fid (Figure 87).

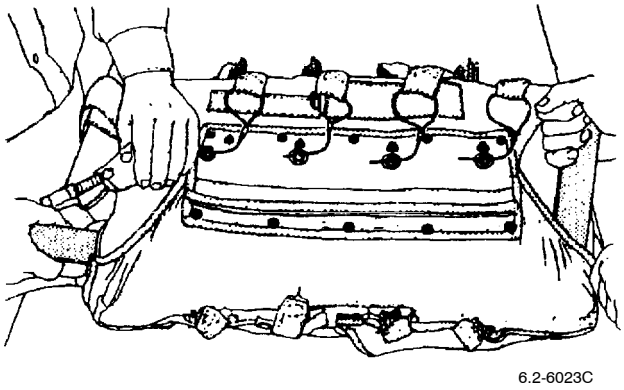


Figure 87. Push Cover Flaps Into Container

i. Insert ripcord cable into ripcord housing (Figure 88).

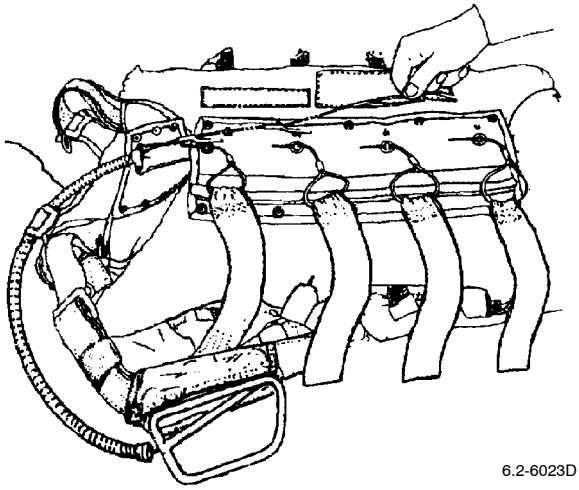


Figure 88. Insert Ripcord Cable

WARNING

Use of ripcord pins as an alignment aid during installation may cause bending of pins and result in excessive pull forces.

j. Pass top ripcord pin thru beveled side of eye in end of automatic parachute ripcord release power cable. Packer and helper shall hold side flap grommets over locking cone nearest base plate as helper removes temporary locking pin. Packer, at same time, inserts top ripcord pin (Figure 89).

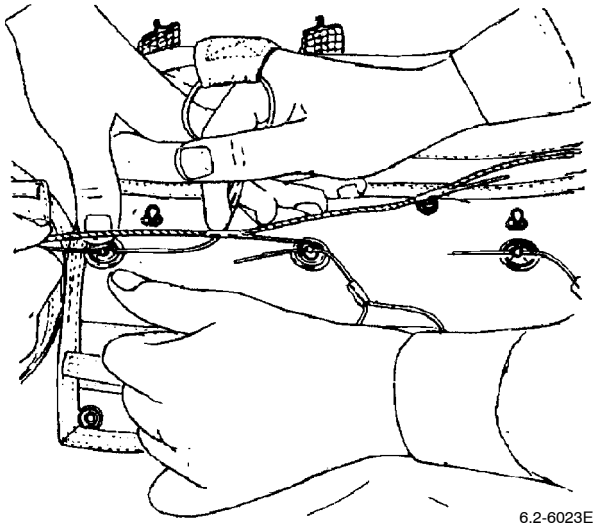


Figure 89. Remove Temporary Locking Pin and Insert Top Ripcord Pin

k. Working from packer's end to helper's end, remove temporary locking pins and at same time insert ripcord pins (Figure 90).

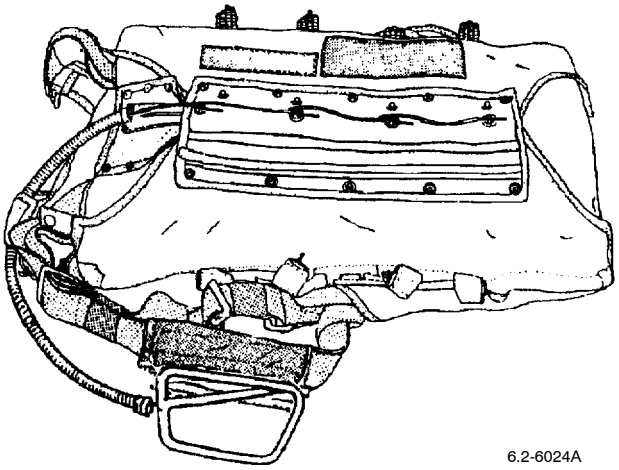


Figure 90. Insert Remaining Ripcord Pins

WARNING

Ripcord pins must be centered in locking cones.

l. Ensure ripcord pins are centered in locking cones so that shoulder of ripcord pin is not jammed against locking cone, but extends more than 1/2-in. beyond base of cone (Figure 91).

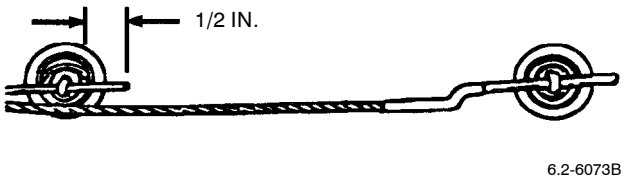


Figure 91. Center Ripcord Pins

m. Attach container spring opening assemblies to container eyes (Figure 92).

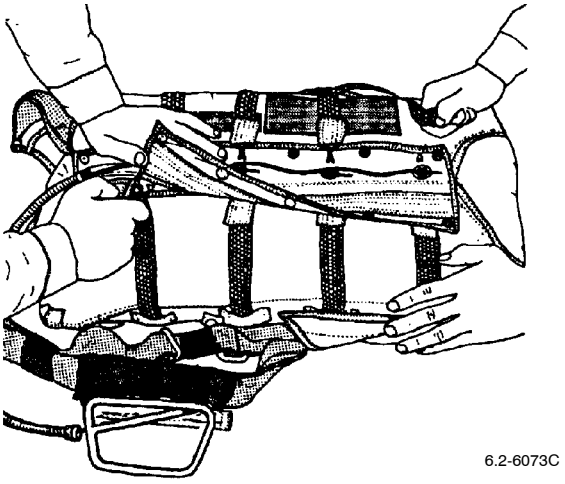


Figure 92. Attach Spring Opening Assemblies

25. AUTOMATIC PARACHUTE RIPCORD RELEASE LANYARD STOWAGE (IF INSTALLED).

a. Attach spring opening assemblies on left side of container. Route second spring opening assembly from bottom thru uppermost channel on stowage pocket. Route bottom spring opening assembly thru lower channel on stowage pocket (Figure 93).

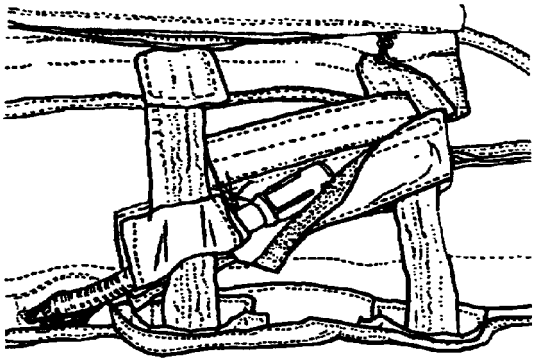


Figure 93. Attach Spring Opening Assemblies

b. Tack base of stowage pocket to bottom spring opening assembly about 3-in. from hook with three turn of size 6 thread, doubled and waxed; tie off (Figure 94).

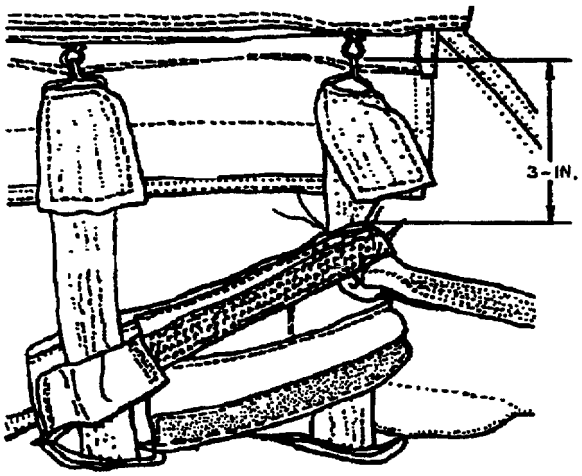


Figure 94. Tack Base of Stowage Pocket

c. Tack lanyard assembly plate to upper flap of stowage pocket with one turn of size E thread, single and waxed; tie off (Figure 95).

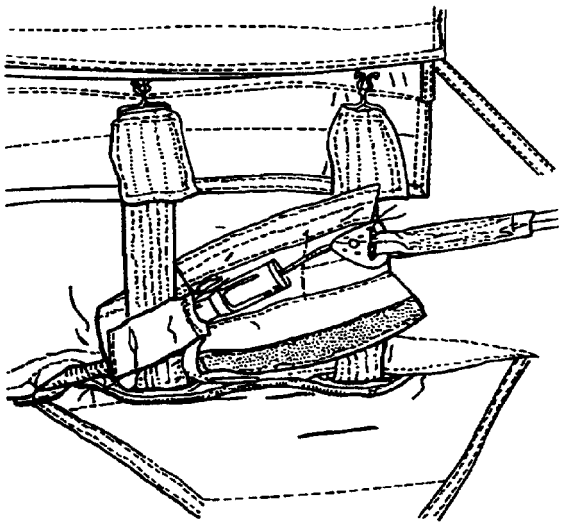


Figure 95. Tack Lanyard Assembly

d. Fake lanyard assembly in stowage pocket and close by securing pile tape on bottom flap with hook pile on top flap (Figure 96).

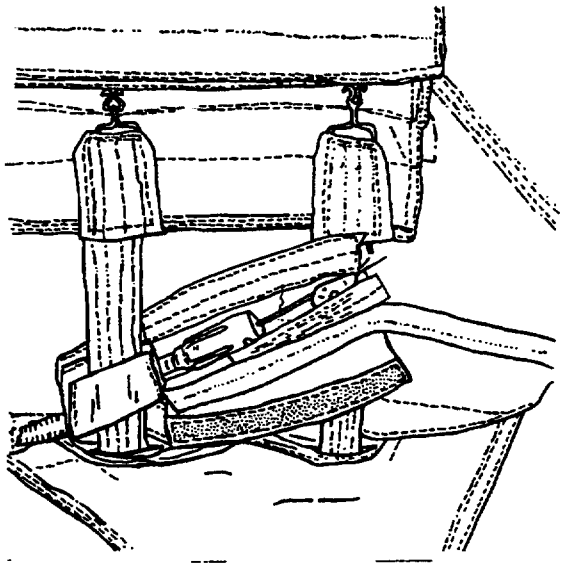


Figure 96. Fake Lanyard Assembly

e. Stow ripcord release lanyard assembly in container by first laying it out on packing table and removing all twists. Form a bight in lanyard 36-in. from eye of snaphook.

f. Using a draw cord stow first bight into flute closest to stowage pocket. Draw bight from bottom to top of container, and adjust so 18 ±2-in. of lanyard remain between bottom of flute and eye of snaphook (Figure 97).

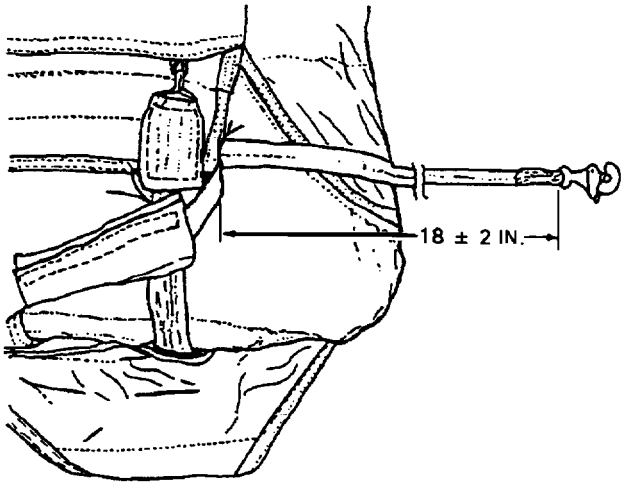


Figure 97. Using a Draw Cord Form First Bight

g. Tack lanyard to bottom of flute with one turn of size E thread, single and waxed; tie off.

26. RIPCORD PIN PULL CHECK.

a. Insert ripcord pin lock on bottom ripcord pin (Figure 98).

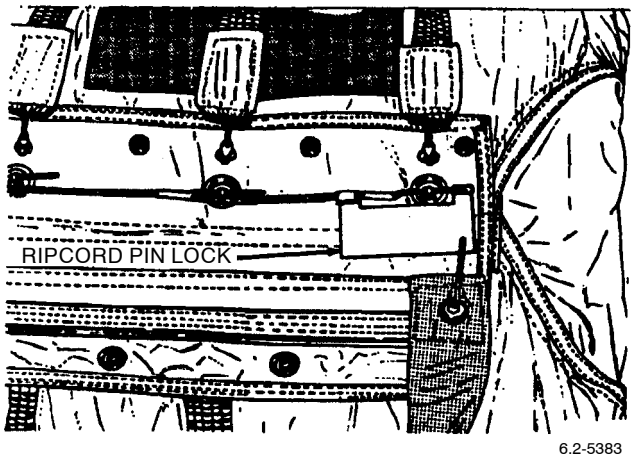


Figure 98. Ripcord Pin Pull Check

b. Attach spring scale to ripcord handle with a nylon cord.

c. Using the scale, apply a straight steady force to ripcord handle until initial movement of ripcord pins is observed. Maximum allowable force is 27 lbs. (QA)

d. If force exceeds 27 lbs., pummel the pack and recheck. If force exceeds 27 lbs. again, repack the parachute. (QA)

WARNING

Ripcord pin lock must be removed.

e. Remove ripcord pin lock. (QA)

f. If necessary, reposition ripcord pins so they are centered in locking cones with shoulder of each pin extending more than 1/2-in. beyond base of cone.

g. Snap ripcord pin protector flap and base plate cover closed.

h. Turn container over so that back pad faces up. Fasten two corner keepers at each corner of container to container bottom. Insert ripcord handle into pocket.

27. INSTALLATION OF STANDARD SOFT PACK (SSP).

a. Insert combination carrying case and equipment container into SSP outer container. Ensure strap handle is positioned at open end of container.

28. FINAL CHECKOUT.

a. Account for all packing tools.

b. Examine packed parachute for general condition.

c. Packer shall complete and sign Parachute Record (OPNAV 4790/101). (QA)

d. QA inspector shall examine completeness and accuracy of all entries on Parachute Record (OPNAV 4790/101).

e. QA inspector shall sign Parachute Record (OPNAV 4790/101).

f. Send a (legible) copy of new Parachute Record to: Commander, Code 461000D, NAVAIRWARCENWPNDIV, 1900 N Knox Road Stop 6206, China Lake, CA 93555-6106.

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INTERMEDIATE AND DEPOT MAINTENANCE

REPAIR PROCEDURES

NB-8 PERSONNEL PARACHUTE ASSEMBLY

PART NO. 569AS100-5, 569AS100-6, 569AS100-7 and 569AS100-8

List of Effective Work Package Pages

Page No.	Chg. No.	Page No.	Chg. No.	Page No.	Chg. No.	Page No.	Chg. No.
1 thru 25	9						

Reference Material

Alphabetical Index

Record of Applicable Technical Directives

None

1. INTRODUCTION.

a. This work package (WP) contains instructions for the maintenance, repair, replacement, and fabrication of various parachute parts or subassemblies to ensure that proper items of equipment remain in a ready-for-issue (RFI) status. Selected repairs shall be documented on the Parachute Record. For common repairs refer to WP 004 00.

2. PILOT PARACHUTE AND CONNECTOR STRAP REPAIRS.

a. Repair of pilot parachute and/or connector strap is limited to following:

(1) Cleaning of contaminated areas.

(2) Replacement of loose or broken tacking.

b. Replace pilot parachute and/or connector strap for any of following:

(1) Service/total life has expired per WP 013 02.

(2) Seam separations and loose or broken stitching (yarn separation is acceptable) that may affect safe operation of the parachute.

(3) Pilot parachute spring is broken or distorted.

(4) Pilot parachute locking cone or grommet is loose or damaged.

(5) Connector strap finished length is incorrect.

3. REPLACEMENT OF PILOT PARACHUTE.

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Inspect replacement pilot parachute per WP 013 02.

b. Remove tacking at Lark's head knot and then remove pilot parachute.

c. Pass large loop of connector strap thru loop in pilot parachute. Form a Lark's head knot by passing entire pilot parachute thru loop of connector strap and pull tight (Figure 1).

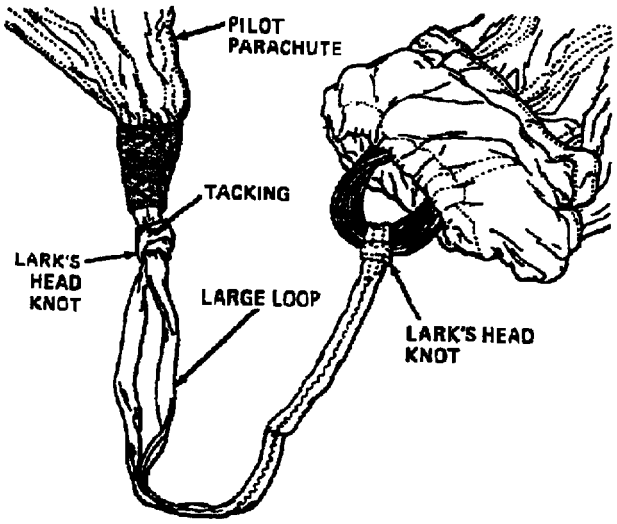

Figure 1. Pilot Parachute and Connector Strap Replacement

d. Tack Lark's head knot with two turns of size 6 thread, single and waxed; tie off (Figure 1). (QA)

e. Mark date placed in service on pilot parachute. Make proper entries on Parachute Record (OPNAV 4790/101). (QA)

4. REPLACEMENT OF PILOT PARACHUTE CONNECTOR STRAP.

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Remove tacking at lark's head knot and then remove pilot parachute connector strap.

b. Inspect replacement connector strap for cuts, fraying and loose or broken stitching.

c. Measure length of connector strap. Proper unattached length is 23 1/2 ± 1/2-in.

d. Count 14 apex lines in sequence. Pass small loop of connector strap around the 14 apex lines. Form a Lark's head knot by passing connector strap thru large loop of connector strap and pulling tight (Figure 1).

e. Pass large loop end of connector strap thru loop in pilot parachute. Form a lark's head knot by passing entire pilot parachute thru large loop of connector strap (Figure 1).

f. Tack Lark's head knot at pilot parachute with two turns of size 6 thread, single and waxed; tie off (Figure 1).

g. Mark date placed in service on connector strap. Make proper entries on Parachute Record (OPNAV 4790/101). (QA)

5. REPLACEMENT OF PILOT PARACHUTE CONNECTOR STRAP LOOSE OR BROKEN TACKING.

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Remove broken tacking or completely remove loose tacking.

b. Pull Lark's head knot tight.

c. Tack Lark's head knot at pilot parachute with two turns of size 6 thread, single and waxed; tie off. (QA)

6. REPLACEMENT OF PILOT PARACHUTE LOOSE OR BROKEN TACKING (PLATE ASSEMBLY).

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Remove broken tacking or completely remove loose tacking.

NOTE

Plate is attached at base of coil spring.

b. Locate the four holes in the plate within pilot parachute fabric.

c. Tack thru holes with two turns of size 6 thread, doubled and waxed; tie off. (QA)

7. CANOPY ASSEMBLY REPAIRS.

8. REPLACEMENT OF CANOPY ASSEMBLY.

Support Equipment Required

Part Number	Nomenclature
Refer to WP 005 00	Temporary Locking Pin
—	Screwdriver, Torque

Materials Required Required

Specification or Part Number	Nomenclature
F-900 Torque Seal (Color Optional)	Sealing Compound
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A

NOTE

For Double "L" Connector Link, refer to Paragraph 30 for disassembly, assembly, and inspection instructions.

a. Remove pilot parachute and connector strap from vent lines. Retain for reinstallation.

b. Remove four-line release rigging from connector links and then remove lanyard from flutes.

c. Remove connector link yoke and plate assembly.

d. Remove connector links from riser loops and then reinstall yoke and plate assembly.

e. Dispose of canopy per supply directives.

f. Lay out replacement canopy assembly and stretch it to its full length on clean packing table.

g. Attach tension strap hook to canopy vent lines.

h. Locate gore 28 (nameplate gore) and place it uppermost in center of packing table.

i. At skirt hem, separate suspension lines into two equal groups with lines 1 thru 14 on packer's side and 15 thru 28 on helper's side. Grasping each group of lines, walk from skirt hem to connector links removing any dips and twists between two groups (Figure 2).

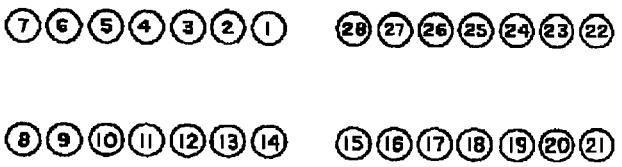

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Figure 2. Arrangement and Orientation of Suspension Lines on Connector Links

j. Place connector link holding lines 1 thru 7 on top of connector link holding lines 8 thru 14. Place connector link holding lines 22 thru 28 on top of connector link holding lines 15 thru 21. Insert tension hooks into connector links and insert hooks into packing table (Figure 2).

k. Pull suspension lines taut and adjust vent hem.

l. Check suspension line continuity on right side of gore 28. Packer shall grasp line 1 at skirt hem and raise to a sufficient height to ensure line is free of dips and twists. Continue this procedure with lines 2 thru 14 (Figure 2). Helper shall be positioned at connector links to check lines selected by packer (Figure 2).

m. Check suspension line continuity on left side of gore 28. Packer shall grasp line 28 at skirt hem and raise to a sufficient height to ensure line is free of dips and twists. Continue this procedure with lines 27 thru 15 (Figure 2). Helper shall be positioned at connector links to check lines selected by the packer (Figure 2).

n. Inspect four-line release anchor loops for proper attachment to lines 3 and 26. Measure 30 ± 1/2-in. above upper connector link bar. Anchor loops must be attached with 2-in. of zigzag stitching.

o. Continue to inspect canopy per WP 013 02.

p. Reattach pilot parachute and connector strap Paragraphs 3 and 4.

q. Place harness and container on packing table with risers facing each other and positioned at connector links. Container will face up and harness will face down on table.

NOTE

If positioned properly, four-line release flutes are on top risers and aircrew, is wearing harness, would be positioned head toward canopy and facing packing table.

r. Remove connector links from tension hooks. Remove tension hooks from packing table.

s. Remove connector link yoke and plate assemblies from bottom connector links.

t. Insert connector links into bottom riser loops.

u. Reattach yoke and plate assemblies to bottom connector links ensuring knurled portions of plate faces up and screwheads face outboard.

v. Remove connector link yoke and plate assembly from top connector links.

w. While maintaining suspension line continuity, slide suspension lines onto a temporary locking pin or rod.

x. Insert connector links into top riser loops.

WARNING

Ensure that suspension line continuity is maintained at all times. Also ensure that clove-hitch and half-hitch at ends of suspension lines have not separated during handling.

y. Reinstall suspension lines 3 thru 7 and 26 thru 22 onto connector links.

z. Reattach yoke and plate assemblies to top connector links ensuring knurled portion of plate faces up and screwheads face outboard.

aa. Insert tension hooks into connector links and then tension canopy.

ab. Perform suspension line continuity check as in steps m and n above.

ac. Tighten screws on top and bottom connector links to a torque value of 20 to 25 in-lbs. (QA)

ad. Apply torque seal to each connector link screwhead.

ae. Rig four-line release lanyards per WP 004 00.

af. Mark date placed in service on canopy. Make proper entries on Parachute Record (OPNAV 4790/101). (QA)

9. HARNESS ASSEMBLY REPAIRS.

a. Repair of harness is limited to the following:

(1) Cleaning of contaminated areas.

(2) Repair of stitching if less than three stitches are loose or broken.

(3) Removal and replacement of four-line release flutes.

(4) Replacement of harness hardware, if replacement does not require the removal of harness stitching.

(5) Replacement of elastic strap keepers.

b. Replace harness for any of the following:

(1) Cuts, tears, or holes in harness webbing.

(2) Loose or broken stitching in excess of three stitches.

(3) Twists, fading, excessive wear, fusing, fraying, burns, contamination or abrasion.

(4) If damaged hardware must be replaced by removal of harness stitching.

(5) Service/total life has expired per WP 013 02.

10. FABRICATION OF CHEST STRAP EXTENDER.

Materials Required

Specification or Part Number	Nomenclature
MS22020-1	Link, Parachute, Triangle
MS22017	Snap, Parachute, Ejector
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A
PIA-W-4088	Webbing, Nylon, Type XXVII, Class I, IA or 2

a. Inspect ejector snap and triangle link for proper function, corrosion, sharp edges, and damage. (QA)

b. Cut a 7 1/2-in. length of nylon webbing; sear ends.

c. Reeve nylon webbing around bar of snap and bar of link as shown in (Figure 3).

d. Using size 6 thread, stitch strap with a four-point crosstitch pattern (Figure 3).

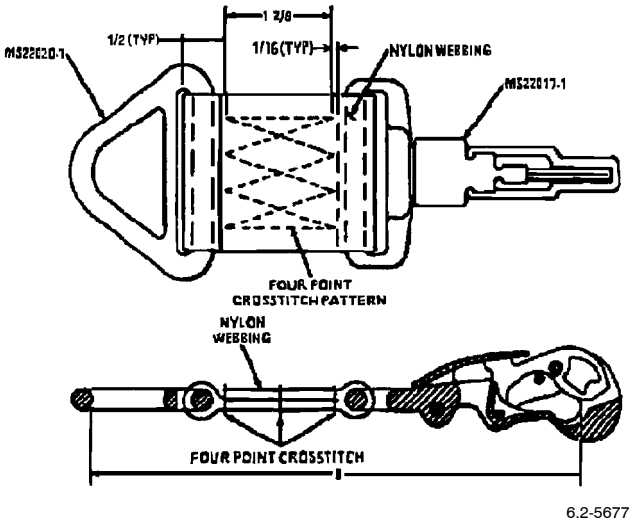

Figure 3. Fabrication of Chest Strap Extender

11. REPLACEMENT OF LABEL (676AS100-1).

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size E, Type I or II, Class A

a. Remove backpad.

b. Carefully remove old label.

c. Cut tackings on harness keeper straps and unreeve straps.

d. Rotate harness off container.

e. Mark required information on replacement label.

f. Machine stitch replacement label to harness in center of horizontal backstrap with label positioned to face wearer.

g. Reattach harness to container per Paragraph 13.

12. ATTACHMENT OF RIPCORD HOUSING TO CONTAINER WITHOUT RIPCORD RELEASE INSTALLED.

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A
F-900 Torque Seal (Color Optional)	Sealing Compound

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Reeve ripcord housing thru shoulder tab on container (Figure 4).

b. Clamp end of housing to base plate, using single housing clamp (60A113C29-1). Tighten clamp screws and apply torque seal to screw heads.

c. Route opposite end of ripcord housing along the inside of the harness assembly, to ripcord pocket loop. Ensure that housing does not pass thru or around harness assembly (Figure 5).

d. Insert ripcord housing end thru loop of ripcord handle pocket. Tack housing to pocket loop, using four turns of size 6 thread, doubled and waxed; tie off.

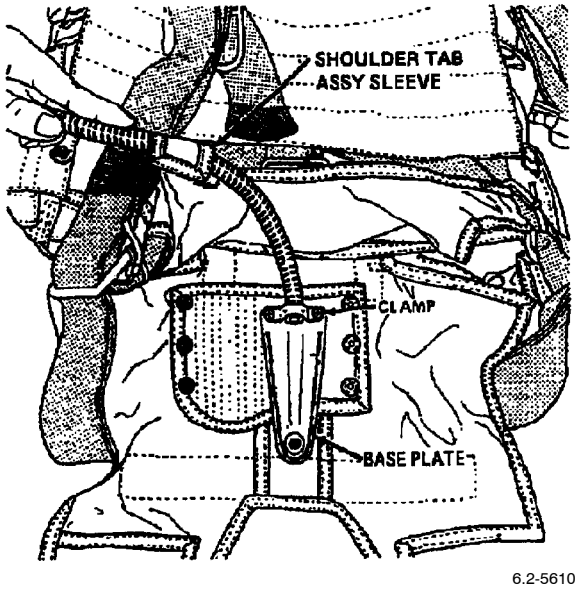

Figure 4. Attachment of Ripcord Housing to Container Without Ripcord Release Installed

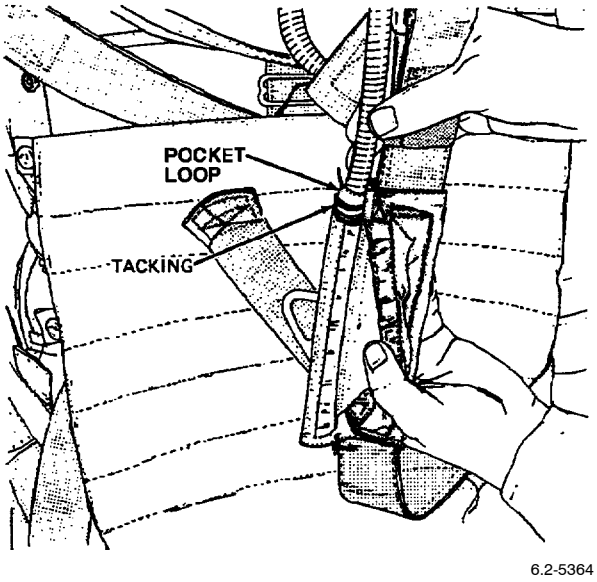

Figure 5. Replacement of Ripcord Pocket Tackings

13. REPLACEMENT OF HARNESS ASSEMBLY.

Support Equipment Required

Part Number	Nomenclature
Refer to WP 005 00	Bodkin
Refer to WP 005 00	Temporary Locking Pin (2)

Materials Required

Specification or Part Number	Nomenclature
PIA-C-5040	Cord, Nylon, Type III
V-T-295	Thread, Nylon, Size E, Type I or II, Class A
V-T-295	Thread, Nylon, Size FF, Type I or II, Class A
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A
F-900 Torque Seal (Color Optional)	Sealing Compound

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. If attached, remove survival kit and tackings.

b. Remove backpad.

c. Remove ties securing shoulder tabs to harness web loops.

d. Remove tackings on harness keeper straps.

e. Remove all harness keeper straps from adapters and then remove harness from container.

f. Remove four-line release tackings from flutes and carefully remove release lanyards from flutes. Insert temporary locking pin into last four-line release daisy chain.

g. Remove connector link yoke and plate assemblies.

h. Slide harness riser loop off connector link bar.

i. Reinstall yoke and plate assemblies.

j. Ensuring continuity is maintained insert connector links onto tension hooks (Figure 2).

k. Remove ripcord from ripcord pocket and housing.

l. Remove tackings securing ripcord pocket to harness and remove pocket.

m. Inspect replacement harness per per WP 013 02.

n. Mark date placed in service on harness. Make proper entries on Parachute Record (OPNAV 4790/101). (QA)

o. Place harness assembly on packing table with exposed ends of corresponding risers facing each other and positioned at connector links. An aircrew wearing the harness would be positioned head toward canopy and facing packing table (Figure 6).

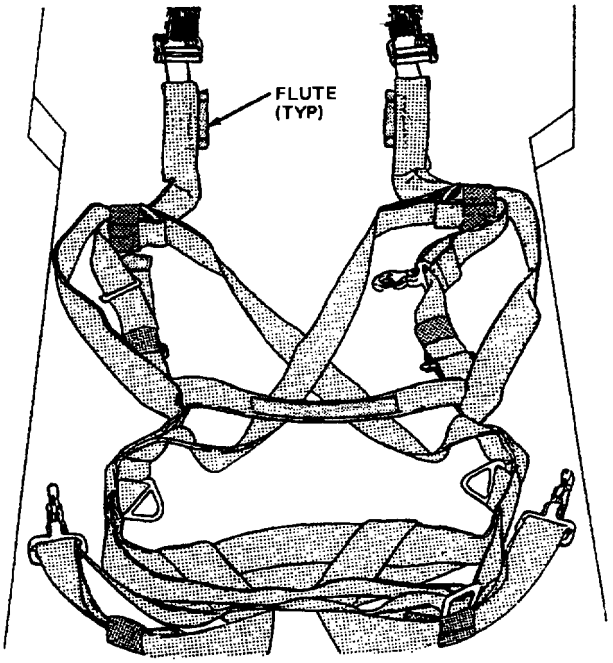

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Figure 6. Position of Harness on Packing Table for Attachment of Connector Links

p. Remove connector link yoke and plate assemblies from bottom connector links.

q. Insert bottom connector links into bottom riser loops.

r. Reinstall yoke and plate assemblies to bottom connector links ensuring knurled portions of plate face up and screwheads face outboard.

s. Remove connector link yoke and plate assemblies from top connector links.

t. Insert top connector links into top riser loops.

u. Reinstall yoke and plate assemblies to top connector links ensuring knurled portions of plate face up and screwheads face outboard.

v. Check suspension line continuity (Figure 2).

w. Tighten screws on top and bottom connector links to a torque value of 20 to 25 in-lbs. (QA)

x. Apply torque seal to each connector link screwhead.

y. Using a bodkin or equal tool, insert and pull release lanyard pull loops thru proper lanyard flute. Pull loops should extend completely thru flute with top of loops butted up against lower edge of flute.

z. Remove temporary locking pins from last four line release daisy chains.

aa. Tack release lanyard to flute with one turn of size FF thread, single and waxed. Tacking shall pass thru outer cover of flute, thru the release lanyard, thru and around last daisy chain loop and then back thru flute; tie off.

ab. With lanyard pull loop fully extended, tack risers together. Tack at center of riser and 1/2-in. above bottom of lanyard pull loop with one turn of size FF thread, single and waxed; tie off.

ac. Attach harness to container as follows:

ad. Position container on top of harness risers with inside of container facing risers and top edge of container positioned at harness shoulder adapters (Figure 7).

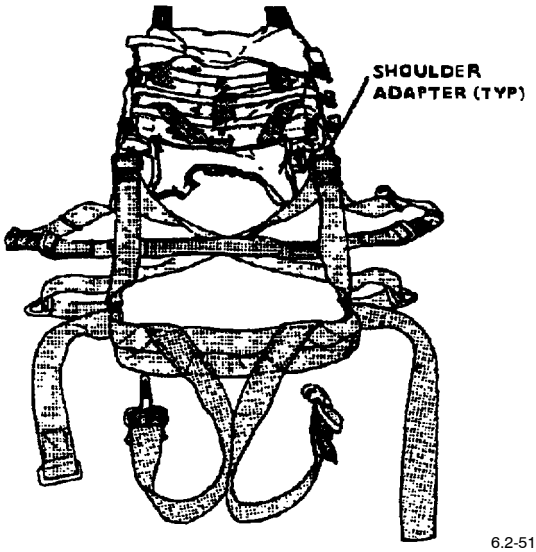

Figure 7. Position Container on Top of Harness Risers

ae. Rotate harness assembly at shoulder adapters and place on top of container (Figure 8).

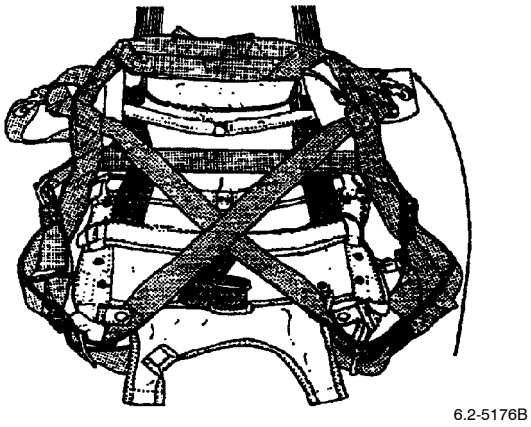

Figure 8. Rotate Harness Assembly

af. Position diagonal back straps under upper center harness keeper straps on container and reeve straps together (Figure 9).

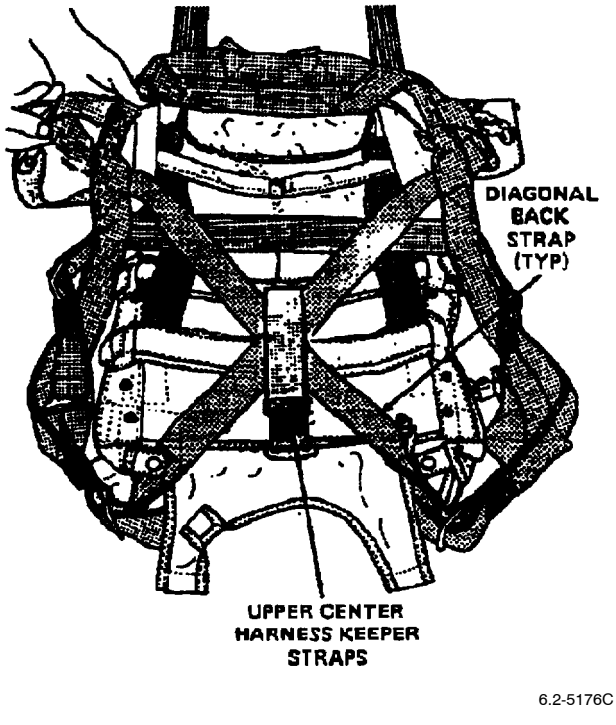

Figure 9. Position Diagonal Back Straps

ag. Position both diagonal back straps and horizontal back strap under two keeper straps located on each side of container and reeve upper and lower keeper straps together (Figure 10).

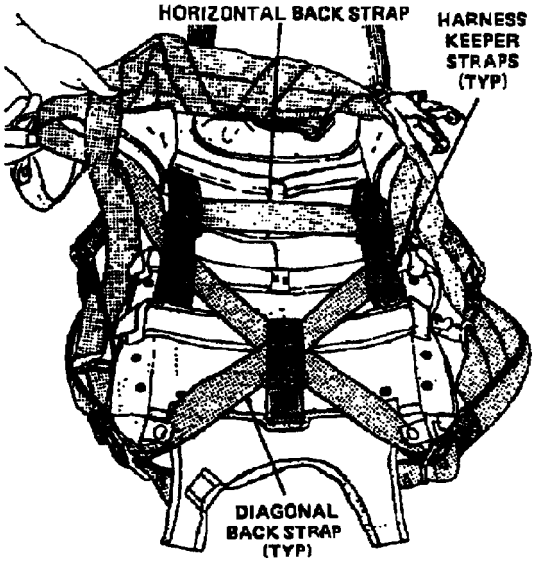

Figure 10. Position Both Diagonal Back Straps

ah. Pass keeper strap located on each wing panel thru opening formed by each upper leg strap extension and around harness webbing; then reeve keeper straps together (Figure 11).

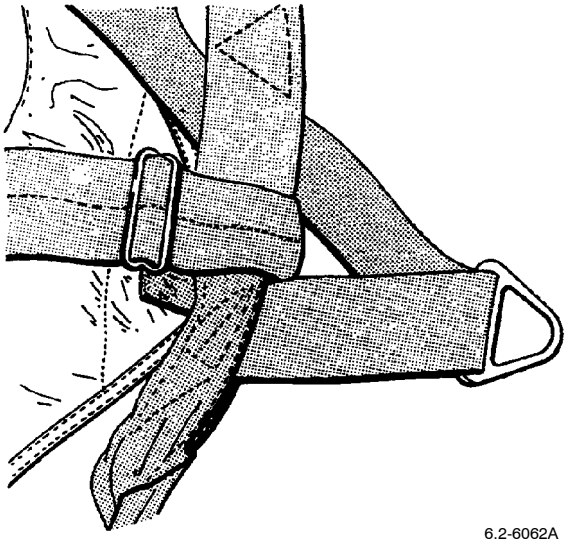

Figure 11. Pass Keeper Strap thru Opening

ai. Tack each strap at adapter with one turn of size 6 thread, single and waxed. Pass tacking thru straps and around center bar of adapter; tie off (Figure 12).

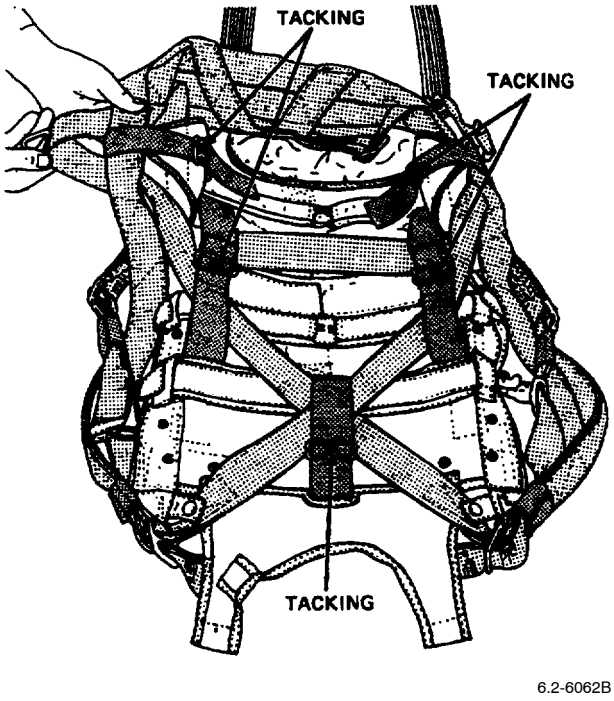

Figure 12. Tack Each Strap at Adapter

aj. Attach back pad to container, securing six back pad side tabs (Figure 13).

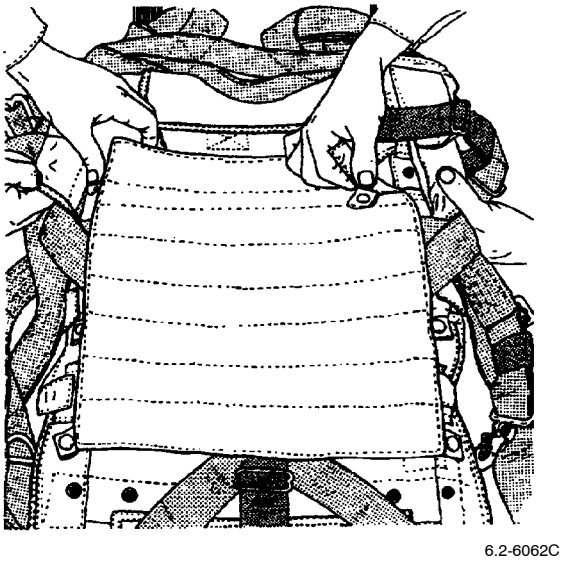

Figure 13. Attach Back Pad

ak. Cut two 10-in. lengths of Type III nylon cord. Remove and discard inner core and sear ends of casing.

al. Tie shoulder tabs to web loops securing center bar of each shoulder adapter using 10-in. nylon cord casing. Tie ends with a square knot (Figure 14).

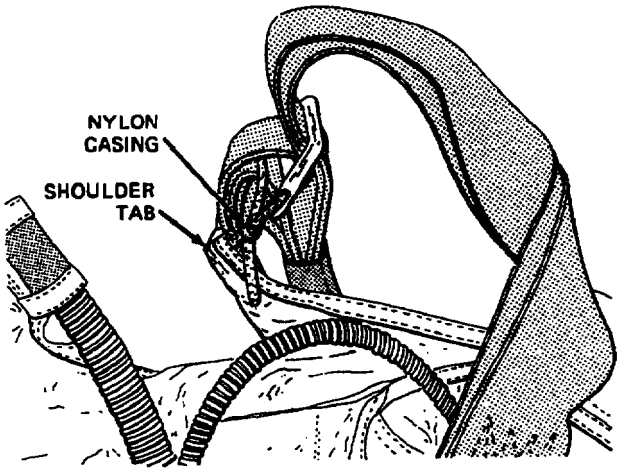

Figure 14. Tie Shoulder Tabs to Web Loops

NOTE

If seat cushion or seat pan and SSP are to be attached, follow steps am thru ao.

am. Reeve raft retaining strap completely thru strap adapter, positioning adapter against main sling of harness. Fold strap end 2-in. under and tack to strap beneath with one turn of size 6 thread, single and waxed; tie off (Figure 15).

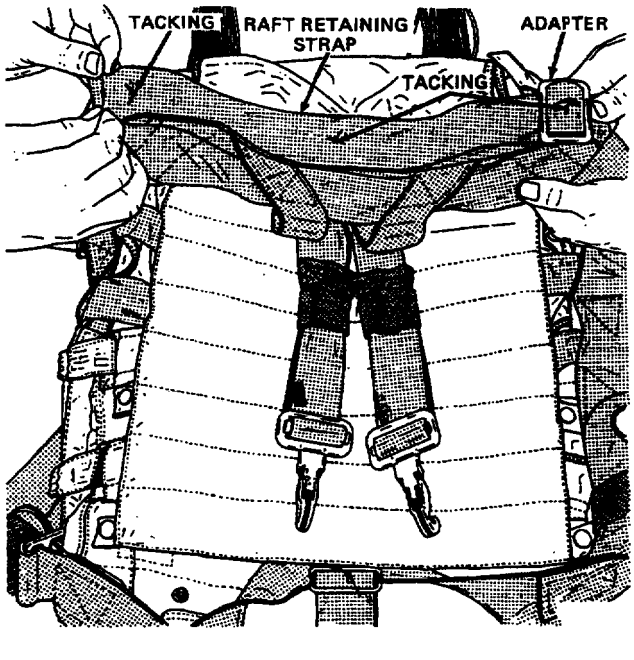

Figure 15. Reeve Raft Retaining Strap Completely Thru Strap Adapter

an. Tack raft retaining strap at adapter by passing one turn of size 6 thread, single and waxed, around each side of adapter center bar and thru retaining straps tie off (Figure 15).

ao. Tack both raft retaining straps together at center, thru main sling, with one turn of size 6 thread, single and waxed; tie off (Figure 15).

ap. Attach ripcord pocket to harness per WP 004 00.

aq. Attach ripcord housing per WP 004 00.

ar. If installed, attach survival kit by reeving leg straps thru keepers on SSP and then up thru slot in seat cushion or seat pan, as applicable.

as. Mark date placed in service on identification and service life label. (QA)

14. CONTAINER ASSEMBLY REPAIRS.

15. REPLACEMENT OF CLAMP BASE ASSEMBLY AND/OR LOCKING CONE ON CONTAINER TOP FLAP.

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A
60A113C16-1	Base Assembly, Clamp
	or-
60A113C24-1	Cone, 0.410 Grip

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Cut and remove stitching retaining base assembly and locking cone from top flap. Remove base assembly and locking cone.

b. If base assembly is to be replaced, remove clamp and screws and retain for reinstallation. If locking cone is to be replaced, leave clamp with ripcord housing/power cable housing attached to base assembly.

c. Using a sufficient length of size 6 thread, doubled and waxed, to complete repair, tie a binder knot 3 to 4-in. from end of thread for tie off when stitching is complete.

d. Position replacement base assembly/locking cone in exact location of damaged or missing base assembly/locking cone. Ensure that ripcord locking pin hole is aligned in same direction as that removed.

e. Start handstitching from inside of container at widest end of base assembly, using a running stitch thru each hole in the base assembly and applicable holes in locking cone. Stitch to last hole in sequence; then stitch back around base assembly to starting hole. Tie off; Trim ends 1/2-in.

f. If base was replaced, reinstall clamp and ripcord housing/power cable housing.

16. REPLACEMENT OF SLIDE FASTENER ON PARARAFT FLAP ASSEMBLY.

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size E, Type I or II, Class A
814AS807-1	Slide Fastener

a. Carefully remove stitching holding damaged slide fastener to pararaft flap assembly.

b. Place replacement slide fastener on pararaft flap assembly in same position as one removed.

c. Starting with bottom end of slide fastener, align slide fastener tape flush with edge of flap assembly and sew with 3 rows of stitching about 1/8-in. apart.

d. At top stop end of slide fastener remove any excess tape and sear.

17. REPLACEMENT OF CONTAINER.

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A
PIA-C-5040	Nylon, Cord, Type III

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Remove tackings and survival kit if installed.

b. If survival kit is not attached, remove raft retaining strap tackings

c. Remove backpad.

d. Remove ties securing shoulder tabs to harness web loops.

e. Remove tacking on harness keeper straps.

f. Remove all harness keeper straps from adapters and then remove harness from container.

g. Remove ripcord housing.

h. Inspect replacement container per WP 013 02.

i. Attach container to harness per Paragraph 13.

j. Mark date placed in service on container. Mark data on parachute assembly label from old container. Make proper entries on Parachute Record (OPNAV 4790/101). (QA)

k. Reeve free end of ripcord housing thru shoulder tab sleeve.

l. Clamp ripcord housing to base plate using single housing clamp.

m. Attach ripcord housing.

n. If installed, attach survival kit by reeving leg straps thru keepers on SSP and then up thru slot in seat cushion or seat pan.

18. REPLACEMENT OF STANDARD SOFT PACK (SSP) AND SEAT CUSHION.

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Remove combination carrying case and equipment container from SSP outer container.

b. Remove all tackings and unreeve harness retaining straps and leg straps. Remove SSP and seat cushion.

c. Attach SSP and seat cushion to harness.

d. If necessary remove tackings from harness raft retaining strap and unreeve strap.

e. Position packed assembly on packing table with back pad facing up. Slide seat cushion between harness main sling and back pad with slot turned toward top of parachute container (Figure 16).

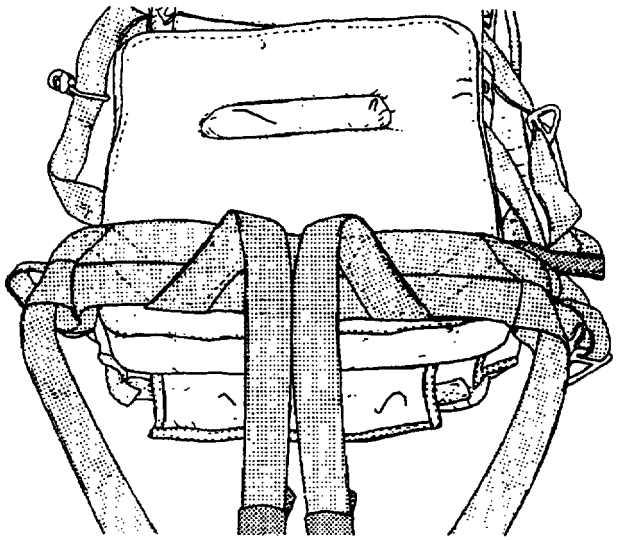

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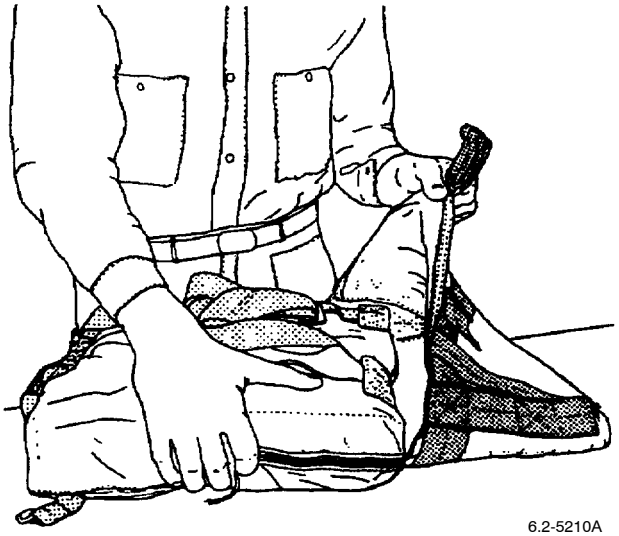
Figure 16. Positioning Packed Assembly

f. If installed, remove and discard the six Type III nylon cord ties from SSP outer container.

g. Turn SSP outer container over so that horizontal strap adapter faces up.

h. Position combination carrying case and equipment container on packing table with shoulder straps facing up. Insert combination carrying case and equipment container into SSP outer container. Carrying case and equipment container strap handle must be positioned at open end of outer container (Figure 17).



6.2-5210A

Figure 17. Positioning Combination Carrying Case

i. Pull outer container main panels over combination carrying case and equipment container. Secure vertical strap quick-disconnect shackle outside of strap handle. Reeve horizontal and vertical straps snugly thru adapters.

j. Mark ends of vertical and horizontal straps at edge of each adapter (Figure 18).

6.2-5210B

Figure 18. Marking Vertical and Horizontal Straps

k. Disconnect vertical strap quick-disconnect shackle and remove combination carrying case and equipment container from outer container.

l. Adjust horizontal and vertical strap adapters to markings made in step j. Fold both straps under and tuck ends under each adapter. Tack folded under strap to strap beneath with one turn of size 6 thread, doubled and waxed; tie off (Figure 19).

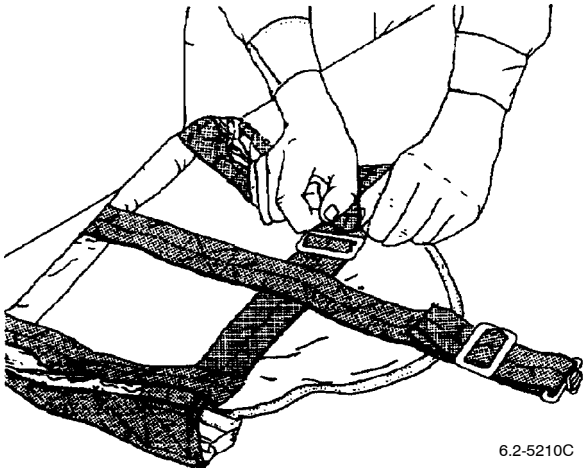


Figure 19. Adjust Horizontal and Vertical Strap

m. Insert combination carrying case and equipment container into outer container and fasten vertical strap quick-disconnect shackle.

n. Place SSP on packing table next to parachute container and pass leg straps thru keepers on SSP (Figure 20).

Figure 20. Pass Leg Straps Thru Keepers

o. Rotate SSP onto seat cushion and pass harness leg straps thru slot in seat cushion (Figure 21).

Figure 21. Rotate SSP onto Seat Cushion

p. Reeve raft retaining straps thru keepers on sides and top of SSP. Remove combination carrying case and equipment container from SSP outer container. Tack around center bar of raft retaining strap adapter with one turn size 6 thread, single and waxed; tie off. Tack center and end of retaining strap to SSP outer container with one turn of size 6 thread, single and waxed; tie off (Figure 22).

Figure 22. Reeve Raft Retaining Straps Thru Keepers

q. Insert combination carrying case and equipment container into SSP outer container.

r. Center-seat cushion slightly behind SSP quick-disconnect shackle. Mark SSP outer container main panel edges and seat cushion on each side of vertical strap for future tacking (Figure 23).

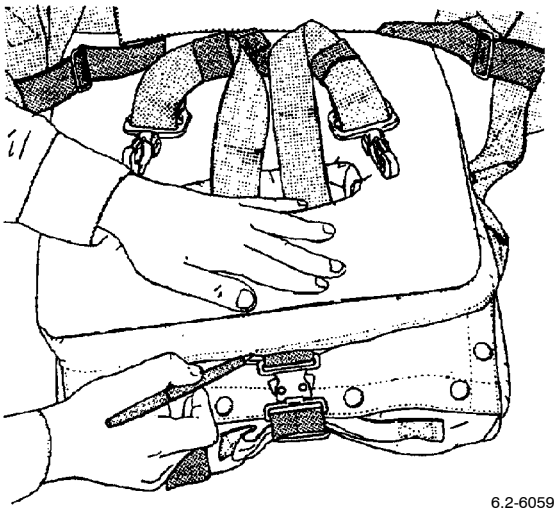


Figure 23. Center Seat Cushion Behind SSP

s. Remove combination carrying case and equipment container from SSP outer container.

t. Tack main panel edges to seat cushion at locations marked in step s, with one turn of size 6 thread, doubled and waxed; tie off. Note that when seat cushion is tacked, it will hang over back of SSP outer container (Figure 24).

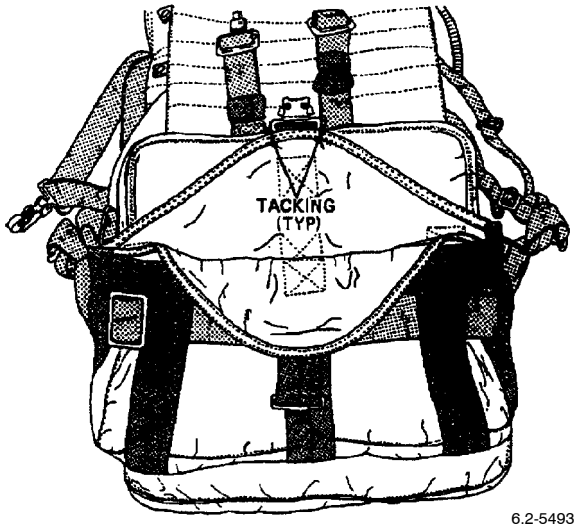


Figure 24. Tack Main Panel Edges

u. Tack four corners of SSP outer container to seat cushion using one turn of size 6 thread, doubled and waxed; tie off. If necessary, compress seat cushion slightly to stitch rear corner tackings. Insert combination carrying case and equipment container. Ensure that quick-disconnect shackle is fastened (Figure 25). (QA)

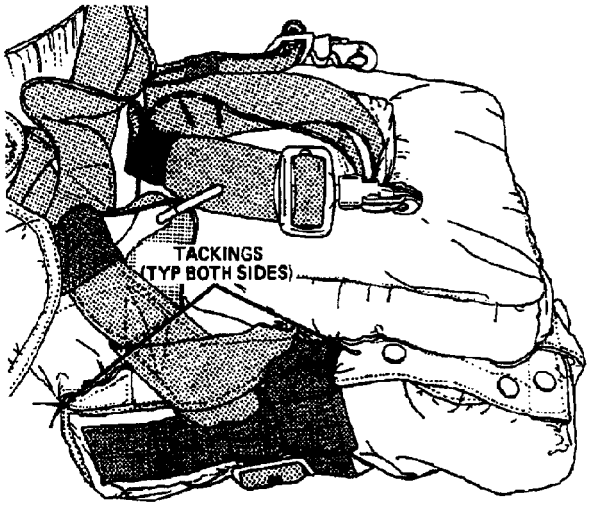


Figure 25. Tack Four Corners

19. REPLACEMENT OF SP1A SEAT PAN AND SSP (IF REQUIRED).

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. If necessary remove tackings from harness raft retaining strap and unreeve strap.

b. Position packed assembly on packing table with backpad facing up. Slide seat cushion between harness main sling and back pad with slot turned toward top of parachute container (Figure 26).

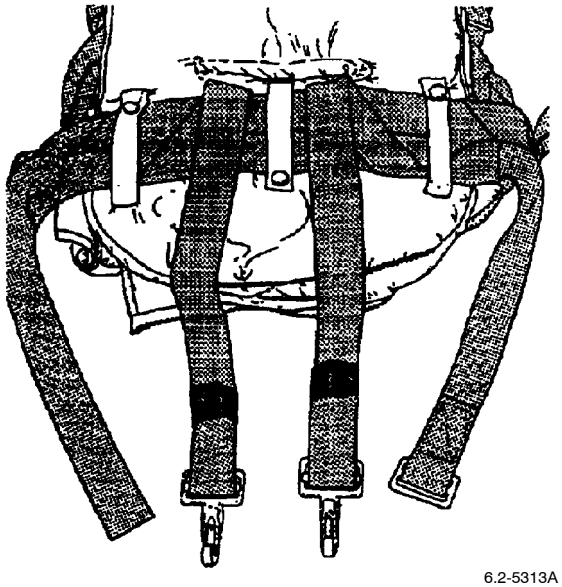


Figure 26. Position Packed Assembly

c. If installed, remove and discard the six Type III nylon cord ties from SSP outer container

d. Turn SSP outer container over so that the horizontal strap adapter faces up.

e. Position combination carrying case and equipment container on packing table with shoulder straps facing up. Insert combination carrying case and equipment container into SSP outer container. Carrying case and equipment container strap handle must be positioned at open end of outer container (Figure 27).

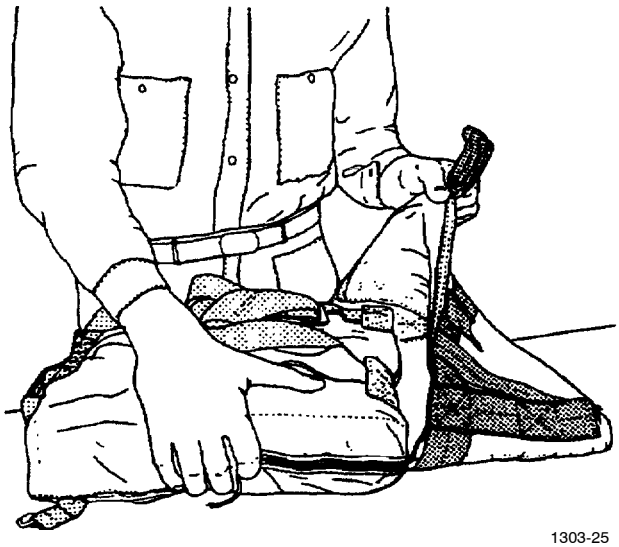


Figure 27. Positioning Combination Carrying Case

f. Pull outer container main panels over combination carrying case and equipment container. Secure vertical strap quick-disconnect shackle outside of strap handle. Reeve horizontal and vertical straps snugly thru adapters.

g. Mark ends of vertical and horizontal straps at edge of each adapter (Figure 28).

Figure 28. Marking Vertical and Horizontal Straps

h. Disconnect vertical strap quick-disconnect shackle and remove combination carrying case and equipment container from outer container.

i. Adjust horizontal and vertical strap adapters to markings made in step g. Fold both straps under and tuck ends under each adapter. Tack folded under strap to strap beneath with one turn of size 6 thread, doubled and waxed; tie off (Figure 29).

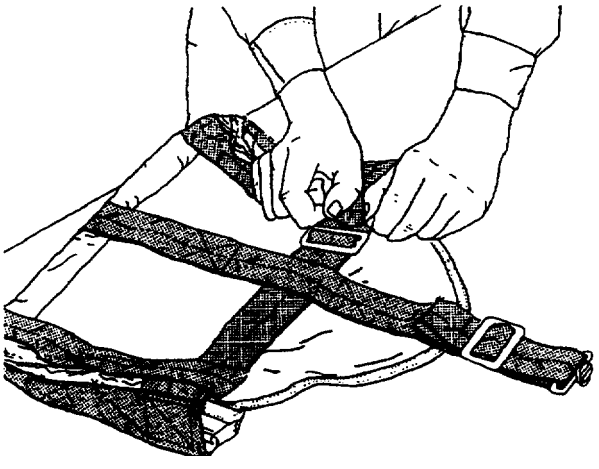


Figure 29. Adjust Horizontal and Vertical Strap

j. Insert combination carrying case and equipment container into outer container and fasten vertical strap quick-disconnect shackle.

k. Place SSP on packing table next to parachute container and pass leg straps thru keepers on SSP (Figure 30).

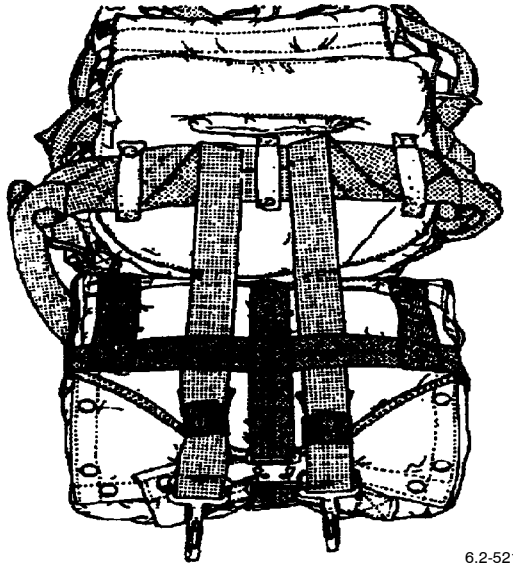


Figure 30. Place SSP on Table

l. Rotate SSP onto seat cushion and pass leg straps thru slot in seat pan (Figure 31).

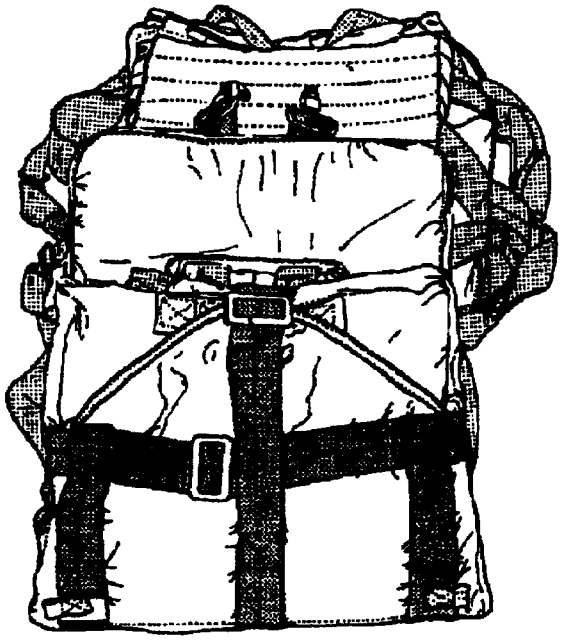


Figure 31. Rotate SSP

m. Reeve raft retaining straps thru keepers on sides and top of SSP. Remove combination carrying case and equipment container from SSP outer container. Tack around center bar of raft retaining strap adapter with one turn of size 6 thread, single and waxed; tie off. Tack center and end retaining strap to SSP outer container with one turn of size 6 thread, single and waxed; tie off (Figure 32).

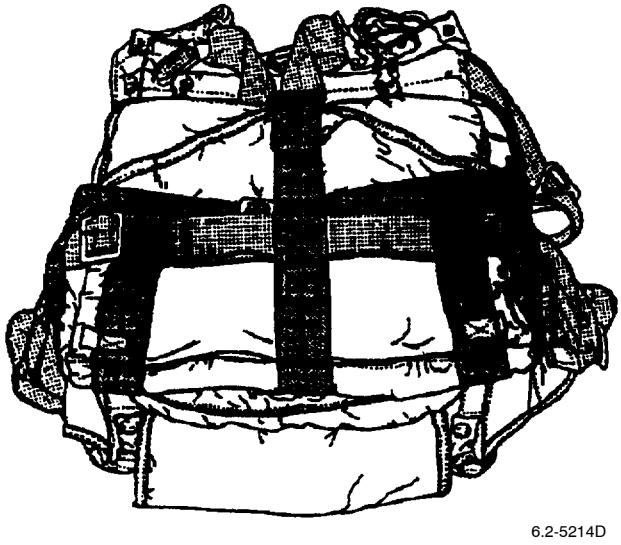


Figure 32. Reeve Raft Retaining Straps

n. Insert combination carrying case and equipment container into SSP outer container.

o. Center-seat pan slightly behind SSP quick-disconnect shackle. Mark SSP outer container main panel edges and seat pan on each side of vertical strap for future tacking (Figure 33).

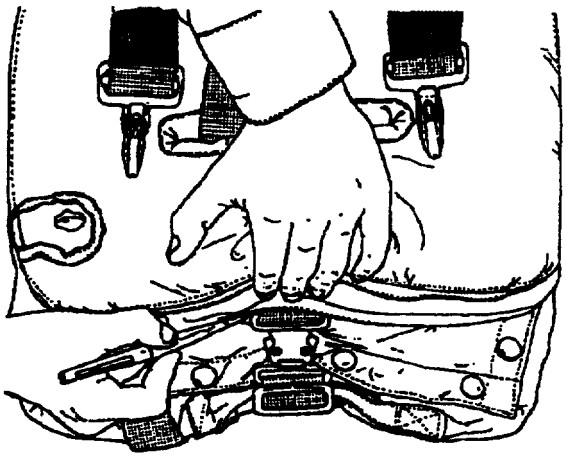


Figure 33. Center-Seat Pan

p. Remove combination carrying case and equipment container from SSP outer container.

q. Tack main panel edges to seat cushion at locations marked in step o, with one turn of size 6 thread, doubled and waxed; tie off. Note that when seat cushion is tacked, it will hang over back of SSP outer container (Figure 34).

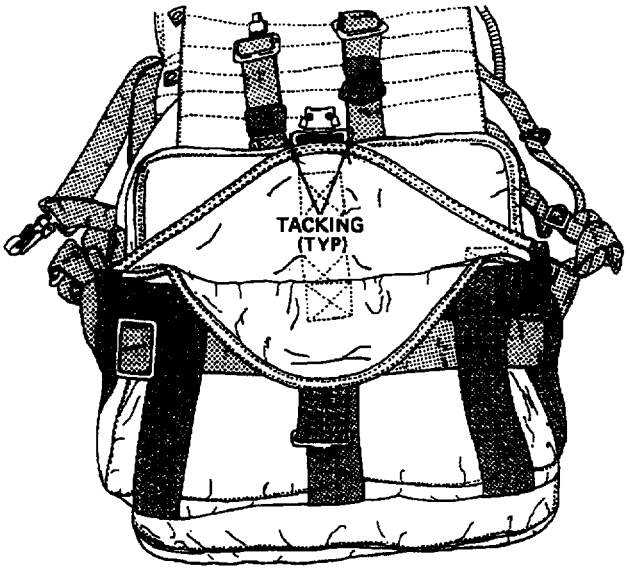


Figure 34. Tack Main Panel Edges

r. Tack four corners of SSP outer container to seat pan one turn of size 6 thread, doubled and waxed; tie off. If necessary, compress seat cushion slightly to stitch rear corner tackings. Insert combination carrying case and equipment container. Ensure that quick-disconnect shackle is fastened (Figure 35). (QA)

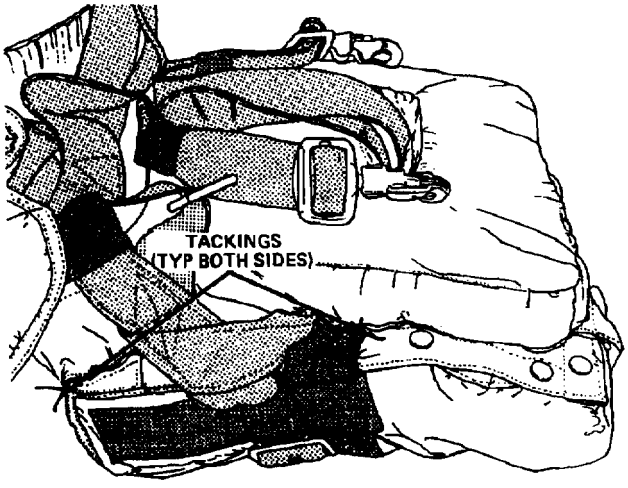


Figure 35. Tack Container to Cushion

20. BACKPAD REPAIRS.

a. Repair of backpad is limited to following:

(1) Cleaning contaminated areas per WP 004 00.

(2) Replacement of snap fasteners per WP 004 00.

(3) Repair of holes, tears, and loose or broken stitching per WP 004 00.

b. Replace backpad for any holes, tears, or other damage deemed beyond repair.

21. AUTOMATIC PARACHUTE RIPCORD RELEASE.

22. REPAIR OF ARMING CABLE END FITTING.

Support Equipment Required

Part Number	Nomenclature
DPP-50	Scale, Spring
---	Pliers, Common

Materials Required

Specification or Part Number	Nomenclature
PIA-C-5040	Cord, Nylon Type I or IA

a. Adjust retaining clips by placing pliers around retaining clips and applying uniform pressure. Ensure that retaining clips are not distorted.

b. Retest arming cable removal per WP 013 02.

c. Using a straight steady pull, observe amount of pull required to remove end fitting from arming cable housing. Allowable force is 17 ± 3 lbs.

23. REPLACEMENT OF AUTOMATIC PARACHUTE RIPCORD RELEASE.

WARNING

The ripcord release shall be thoroughly inspected and in operational condition before being installed.

a. Remove dual housing clamp securing ripcord housing and power cable housing (Figure 36).

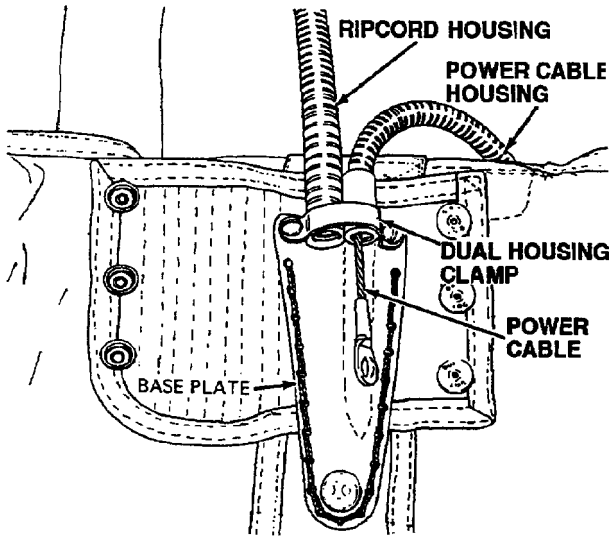


Figure 36. Attachment of Ripcord Release Power Cable and Manual Ripcord Housing to Base Plate

b. Remove ripcord release from container.

c. Inspect replacement ripcord release per WP 013 02.

d. Insert ripcord release arming cable housing thru housing buttonhole in left side of release pocket and then thru buttonhole on left side of container. There should be no slack in housing between buttonhole and release pocket (Figure 37).

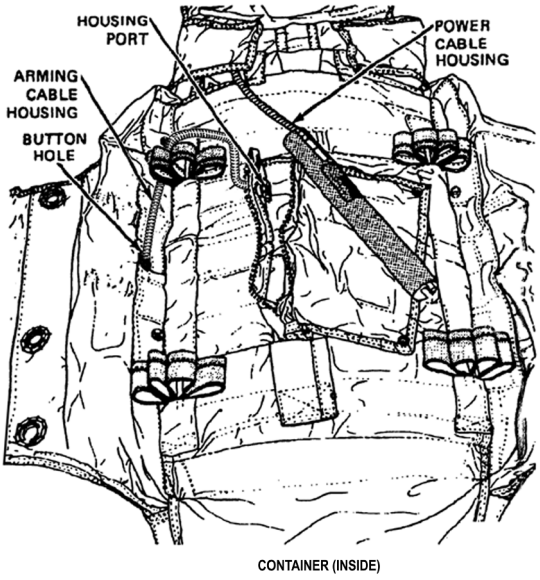


Figure 37. Attachment of Ripcord Release Arming and Power Cable Housing to Container

e. Position power cable housing so it exits container thru left riser slot on top end flap.

f. Clamp one end of manual ripcord housing and free end of power cable to base plate using double clamp. Power cable housing shall be on left side of base plate. One flat side of power cable housing shall face ripcord housing and other flat side shall face base plate (Figure 36).

24. REPLACEMENT OF RIPCORD RELEASE ARMING CABLE HOUSING TACKING.

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Completely remove tacking securing housing to container.

WARNING

Ensure that canopy does not become pierced when tacking housing to container.

b. Tack arming cable housing to inside of container at a point 5-in. from buttonhole with three turns of size 6 thread, diubled and waxed; tie off (Figures 38 and 50).

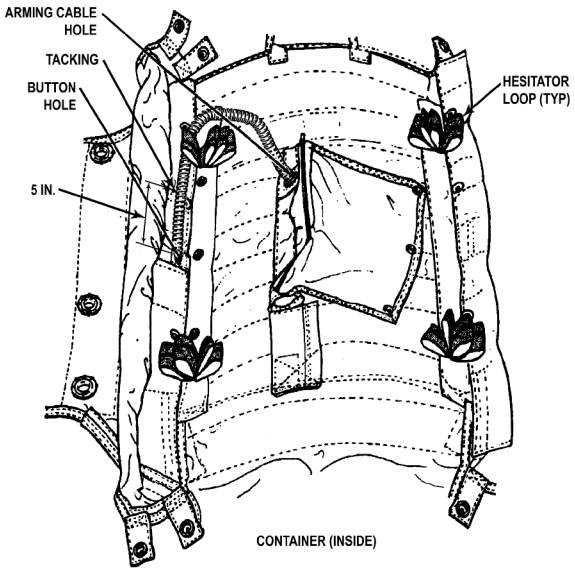


Figure 38. Tacking of Arming Cable Housing to Inside of Container

25. FABRICATION OF LANYARD ASSEMBLY P/N 812AS100-1D.

Support Equipment Required

Part Number	Nomenclature
DPP-50	Scale, Spring

Materials Required

Specification or Part Number	Nomenclature
711-07026	Cable, Arming
MIL-C-7219	Cloth, Nylon, Type III, Class 3
MS27756	Hook, Snap
78AS100-4	Plate (2)
MS20470DD2-3	Rivet, Solid (4)
V-T-295	Thread, Nylon, Size A, Type I or II, Class A
V-T-295	Thread, Nylon, Size E, Type I or II, Class A
MIL-W-5625	Webbing, Textile Nylon Tubular, 1/2-in. Width (1000 lb Breaking Strength)

a. Clamp one end of webbing to a suitable table and extend about 8 ft. Tie a bowline knot to which a spring scale is attached. Apply 5 lbs. of tension for 15 to 20 sec: mark at four places as indicated in Figure 39.

WARNING

Do not allow hot drippings or ends of nylon webbing to come in contact with skin or clothing.

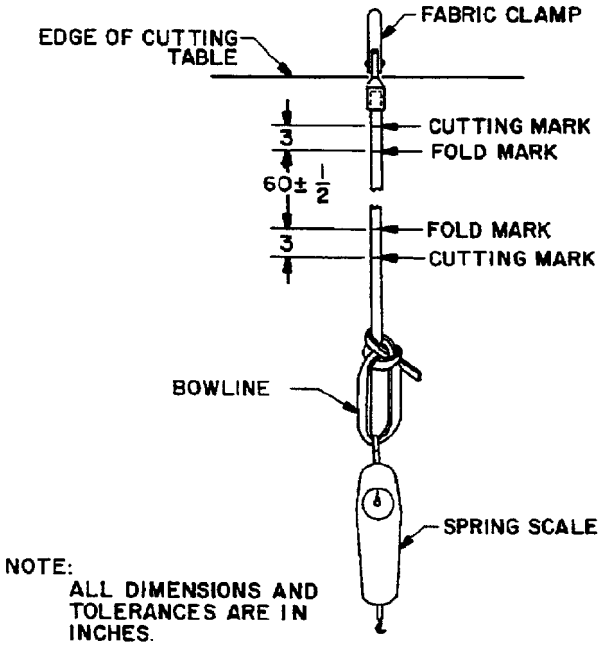


Figure 39. Measuring and Cutting Lanyard Webbing

b. Cut and sear tubular nylon webbing using a hot wire or a hot knife. Avoid forming sharp edges while hot knifing and searing.

c. Cut two lengths of nylon cloth, 1 1/2 by 6-in. to be used as chafing cover for lanyard.

d. Using size E thread, machine stitch a 1 1/2 by 6-in. length of nylon cloth (chafing cover) to tubular nylon webbing (lanyard) at both ends (Figure 40).

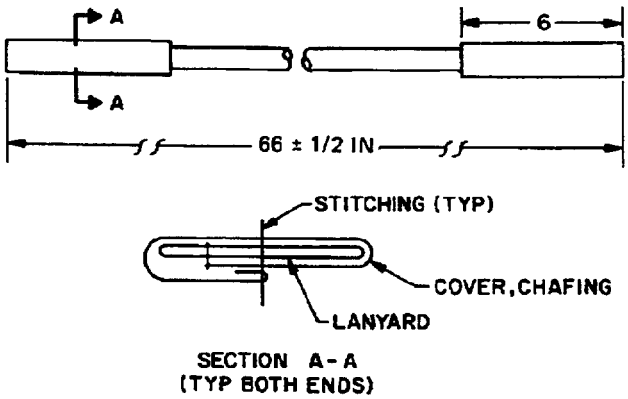


Figure 40. Machine Stitch

e. Thread chafing cover and lanyard thru end fitting (P/N 782AS100-1), temporarily tack in place with size A thread, and then machine stitch using a 3 point cross stitch pattern (Figure 41).

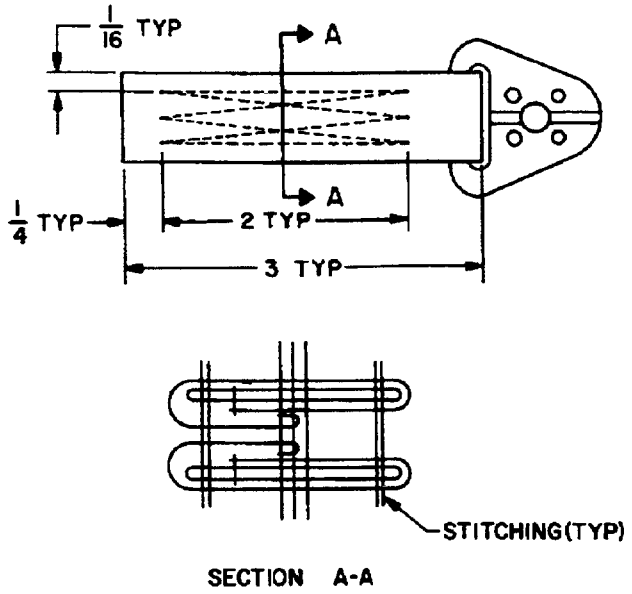


Figure 41. Thread Chafing Cover and Lanyard

f. Thread opposite end of lanyard thru eye in snap hook. Temporarily tack in place with size A thread, and then machine stitch using a 3 point cross stitch pattern (Figure 42).

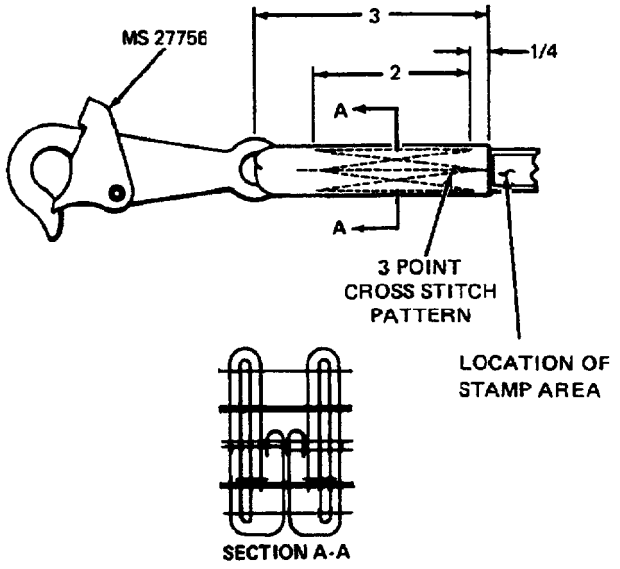


Figure 42. Thread Opposite End of Lanyard

g. Rubber stamp in 1/4-in. characters along long axis of lanyard the following information:

Part Number 812AS100-1D
Date of Manufacture_____
Date Placed in Service

h. Install arming cable into plates; rivet together in four places (Figure 43).

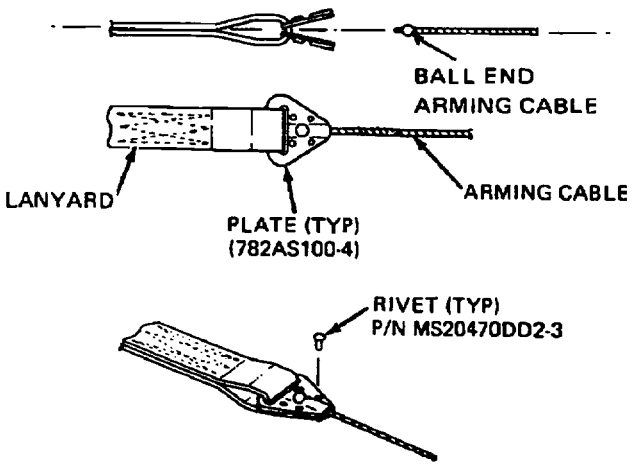


Figure 43. Install Arming Cable

26. FABRICATION OF LANYARD STOWAGE POCKET.

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size E, Type I or II, Class A
MIL-F-21840	Fastener Tape, Hook, 1/2-in. Wide, 5-in. Long
MIL-F-21840	Fastener Tape, Pile, 1/2-in. Wide, 5-in. Long
PIA-W-4088	Webbing, Nylon, Type VIII, 11-in. Long, Class 1, 1A, or 2
PIA-T-5038	Wenning, Textile, Nylon, 1-in. Wide, 7-in. long, Type IV
PIA-T-5038	Wenning, Textile, Nylon, 1 1/2-in. Wide, 5-in. long, Type IV

a. Measure and mark nylon webbing (Figure 44).

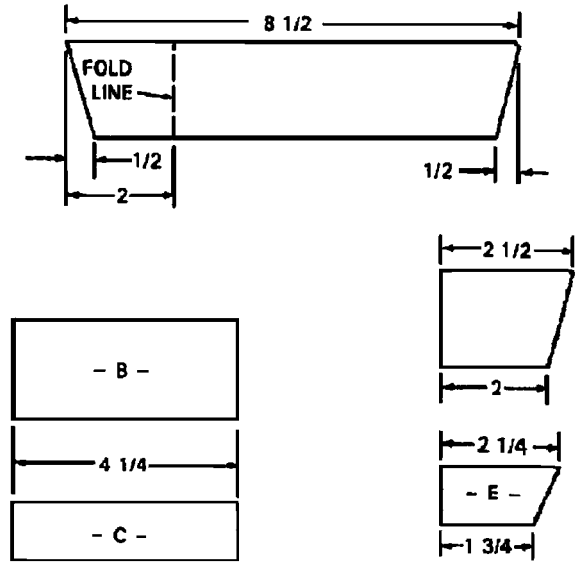


FIgure 44. Measure and Mark

b. Cut a 4 1/4-in. length of 1/2-in. wide hook and pile fastener tape and attach the pile tape to piece B and the hook tape to piece C. Sew with size E thread (Figure 45).

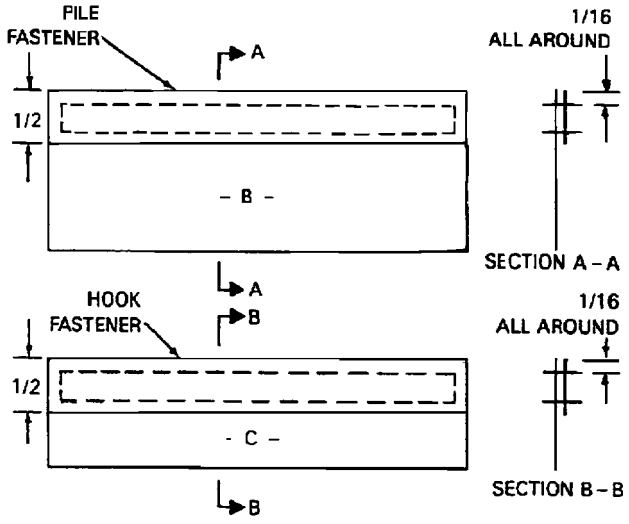


Figure 45. Cut Hook and Pile Tape

c. Position pieces B and C on fold line of piece A with the pile tape of piece B facing up and the hook tape of piece C facing down. Attach these pieces to piece A. Sew with size E thread (Figure 46).

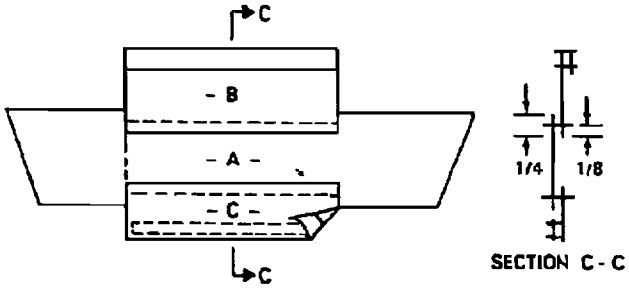


Figure 46. Position Pieces B and C

d. Place piece E on top of piece D and sew with size E thread, to form a channel (Figure 47).

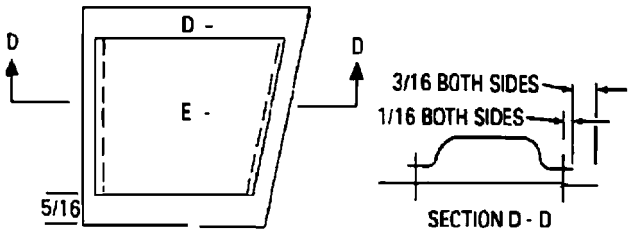


Figure 47. Place Piece E on Top of Piece D

e. Place the newly constructed piece D on top of piece A and stitch 1/8-in. from the edges of piece A with size E thread to form another channel (Figure 48).

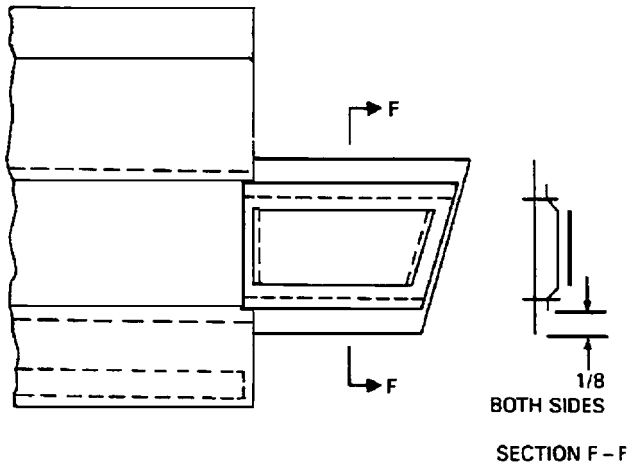


Figure 48. Place Constructed Piece D on Top of Piece A

f. Fold opposite end of piece A under itself at fold line marked earlier and stitch with two rows of size E thread to form another channel (Figure 49).

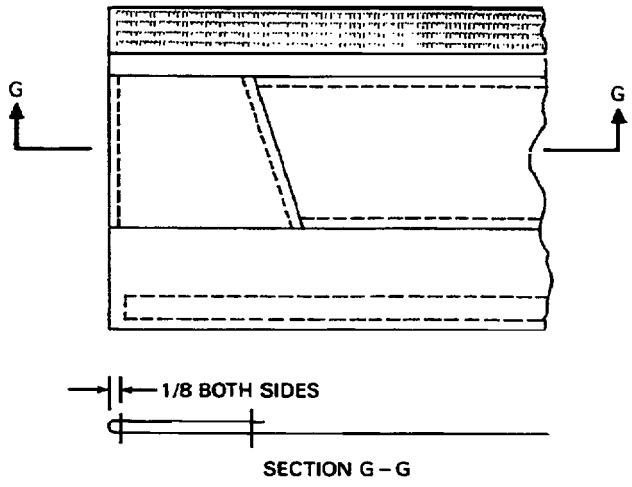


Figure 49. Fold End of Piece A Under Itself

27. INSTALLATION OF LANYARD STOWAGE POCKET.

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size 6, Type I or II, Class A

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Route arming cable housing on inside of parachute container by inserting it thru channel under hesitator loops and thru side of buttonhole. Position end of housing so that it extends 4-in. from outside of buttonhole (Figure 50).

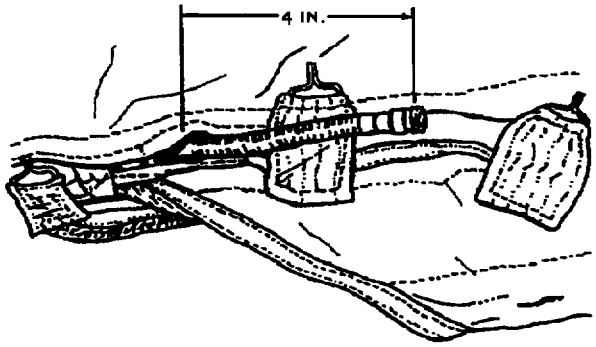


Figure 50. Route Arming Cable Housing

b. Route terminal end of arming cable assembly thru the lowermost channel of the stowage pocket. Tack arming cable housing to stowage pocket where housing exits channel with three turns of size 6 thread, doubled and waxed: tie off (Figure 51).

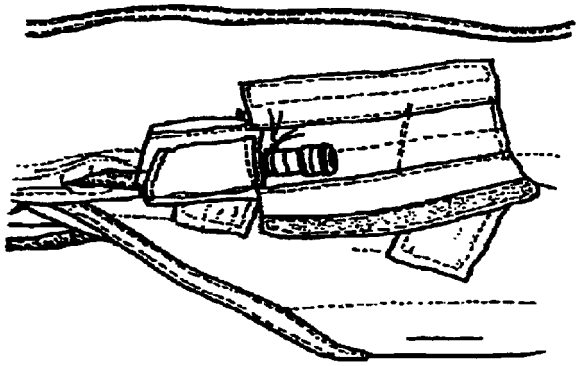


Figure 51. Route Terminal End of Arming Cable Housing

28. STOWAGE OF LANYARD.

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size E, Type I or II, Class A

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Pack parachute assembly per WP 013 02.

b. Attach spring opening assemblies on left side of container. Route the second spring opening assembly from bottom thru uppermost channel on stowage pocket. Route bottom spring opening assembly thru lower channel provided on stowage pocket (Figure 52).

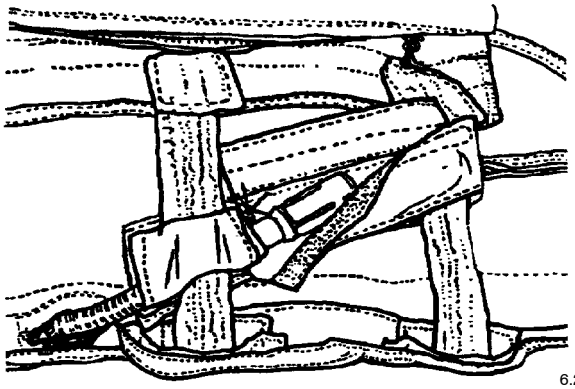


Figure 52. Attach Spring Opening Assemblies

c. Tack base of stowage pocket to bottom spring opening assembly about 3-in. from hook with three turns of size 6 thread, doubled and waxed; tie off (Figure 53).

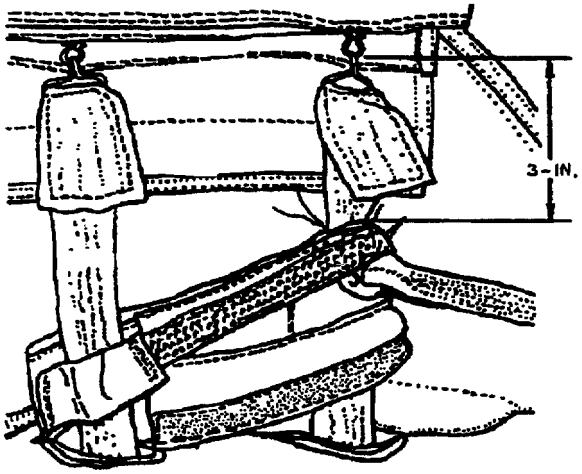


Figure 53. Tack Base of Stowage Pocket

d. Tack lanyard assembly plate to upper flap of stowage pocket with one turn of size E thread, single and waxed; tie off (Figure 54).

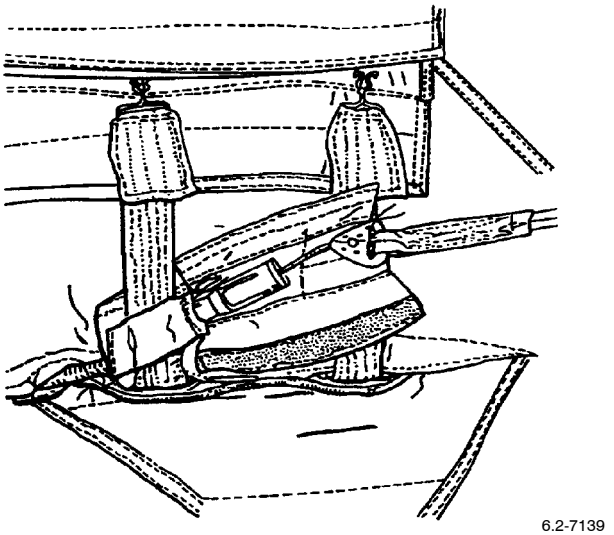


Figure 54. Tack Lanyard Assembly Plate

e. Fake lanyard assembly in stowage pocket and close by securing the pile tape on bottom flap with hook tape on top flap (Figure 55).

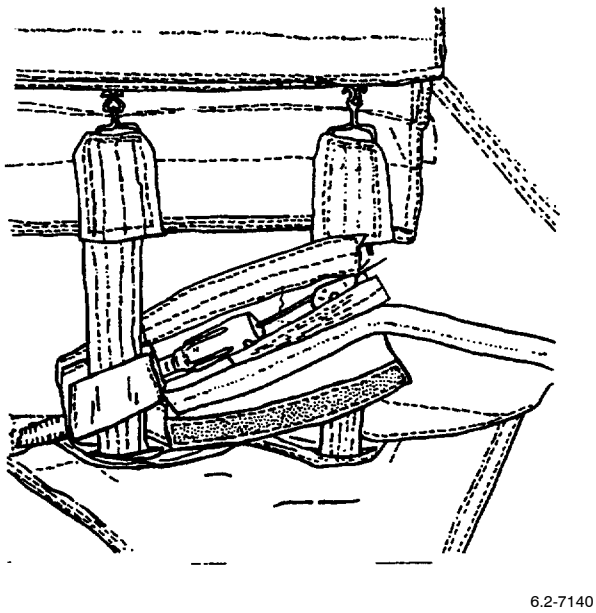


Figure 55. Fake Lanyard Assembly in Stowage Pocket

f. Prepare to stow ripcord release lanyard assembly in container by first laying it out on packing table and removing all twists. Then form a bight in lanyard 36-in. from eye of snaphook.

g. Using a draw cord, stow first bight into flute closest to stowage pocket. Draw a bight from bottom to top of container and adjust it so 18 ± 2-in. of lanyard remain between bottom of flute and eye of snaphook (Figure 56).

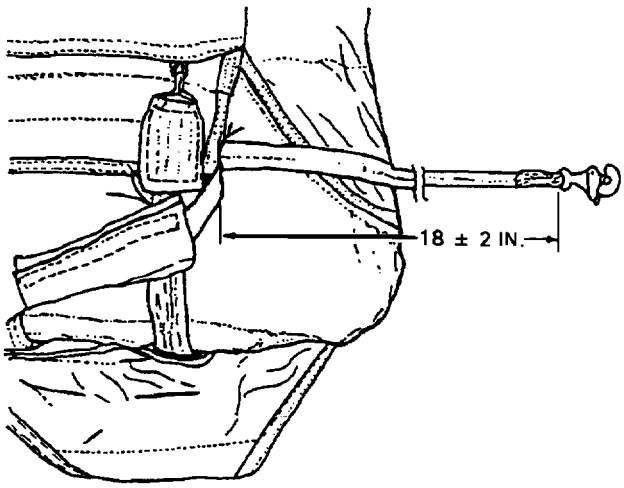


Figure 56. Stow First Bight into Flute

h. Tack lanyard to bottom of flute with one turn of size E thread, single and waxed; tie off.

29. INSTALLATION OF BACKPAD PILE FASTENER TAPE.

Materials Required

Specification or Part Number	Nomenclature
V-T-295	Thread, Nylon, Size E, Type I or II, Class A
MIL-F-21840	Fastener Tape Pile, 2-in. wide, Type II, Class 1

a. Mark a horizontal line 2-in. from the bottom of the back pad.

b. Align one of the 14-in. pieces of pile fastener tape with the 2-in. mark and sew together using size E thread. Sew the remaining pieces of pile fastener tape to the back pad above the first piece (Figure 57).

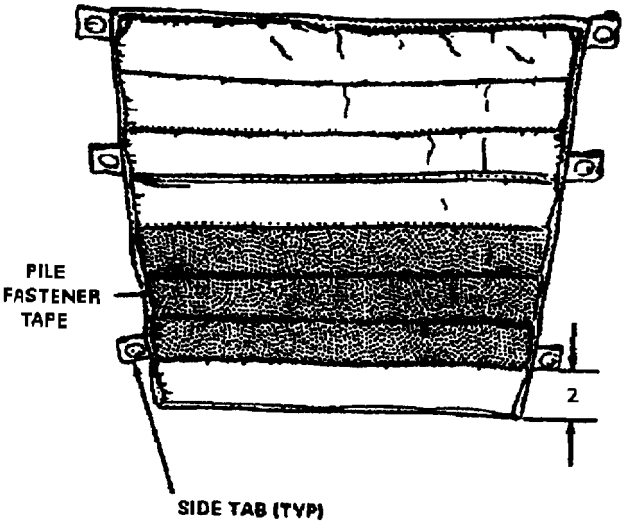


Figure 57. Alignment of Pile Fastener Tape

c. Reidentify backpad as 60A113D6-8.

30. REPLACEMENT OF MS22021-1 CONNECTOR LINK (SPEED LINK) WITH MS22002-1 (DOUBLE "L") CONNECTOR LINK.

NOTE

New canopies received from supply may have the Double 'L" Connector Links installed.

Instructions for attachment of Firing Lanyards, PDVL's, Four-Line Release Systems, etc., will remain the same and will be contained in the application parachute manual.

Materials Required

Specification or Nomenclature	Part Number
MS22002-1	Connector Link (Double "L")
F-900 Torque Seal (Color Optional)	Sealing Compound
—	Torque Screwdriver
MIL-S-43243 (See WP 002 00)	Separator, Link or Equivalent

a. Remove yoke and plate assembly from parachute connector link, P/N MS22021-1.

b. Slide suspension lines from connector link onto a temporary locking pin or rod.

c. Remove cross-connector strap.

d. Slide riser loop off connector link bar and dispose of connector link, P/N MS22021-1.

e. Remove screws from the double "L" connector link, P/N MS22002-1 and separate the two halves of the link.

f. It may be necessary to use a separator device to separate the two halves of the connector link if a separator device is not available, loosen both screws of the connector link by four turns. Place a long bar between the connector link bars to hold the link in place. Using a rawhide or rubber mallet, tap one screw head and then the other screw head several times until the connector link bars separate.

g. Install suspension lines on the new connector link bar. The short leg of the "L" connector is to be positioned to the inside (Figure 58).

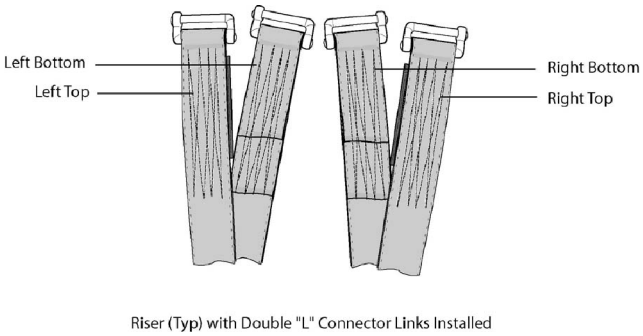


Figure 58. Double "L" Connector Link Layout

h. Install cross-connector strap.

i. Slide riser loop onto opposite connector link bar.

j. Mate both halves of the connector link together.

k. Install screws (2 each).

NOTE

Screws must make a minimum of 6 full turns prior to applying torque.

l. Check suspension line continuity. (QA)

m. Tighten screws to a torque value of 15 in-lbs. (QA)

WARNING

Care must be taken when tightening screws as screwdriver may slip and cause minor injury.

NOTE

It may be necessary to check the torque value on each screw more than once due to the interference fit design feature of the connector link.

n. Apply torque seal to both screw heads and allow to dry before proceeding with remainder of parachute packing.

o. Repeat steps a through l on each riser group.

p. Re-identify the parachute canopy by using an indelible black pen to cross out the existing part number and marking the new superceding part number per Illustrated Parts Breakdown (IPB) WP 013 04.

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ORGANIZATIONAL, INTERMEDIATE AND DEPOT MAINTENANCE

ILLUSTRATED PARTS BREAKDOWN

NB-8 PERSONNEL PARACHUTE ASSEMBLY

PART NO. 569AS100-5, 569AS100-6, 569AS100-7 and 569AS100-8

List of Effective Work Package Pages

Page No.	Chg. No.	Page No.	Chg. No.	Page No.	Chg. No.	Page No.	Chg. No.
1	11	2 thru 7	9				

Reference Material

Intermediate and Depot Maintenance, Packing Procedures,
NB-8 Personnel Parachute Assembly ..... WP 013 02

Alphabetical Index

List of Figures

Record of Applicable Technical Directives

None

1. INTRODUCTION.

a. This Work Package (WP) contains information for ordering and identifying parts for the NB-8 Personnel Parachute Assembly (Figure 1).

2. USABLE ON CODES.

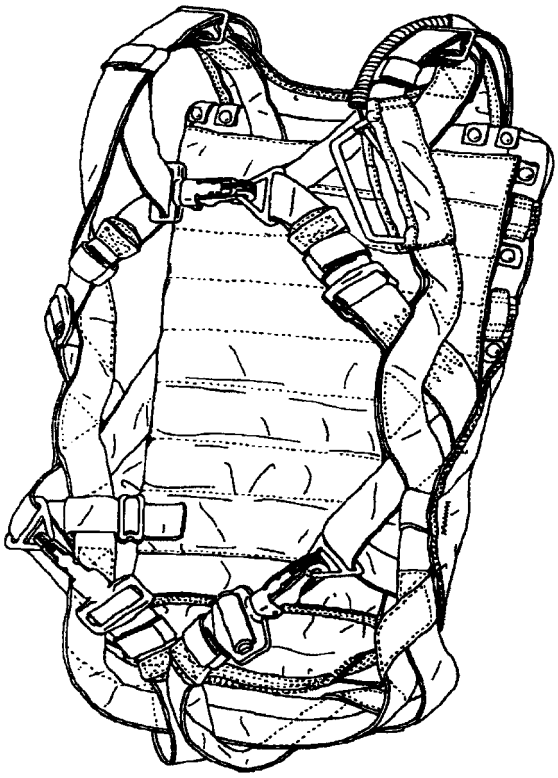
a. The usable on codes in this WP refer to the aircraft applications for the NB-8 Personnel Parachute Assembly.

b. The following usable on codes apply to this WP:

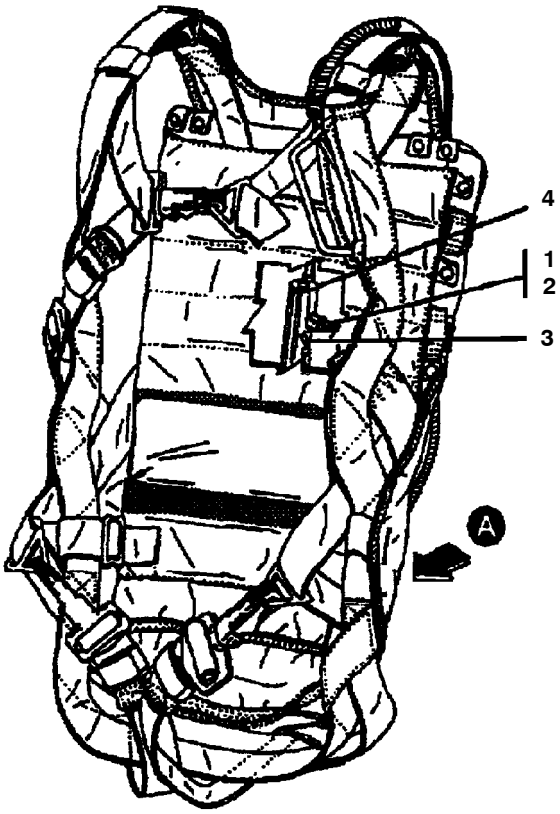
A, B – C-2, C-130, P-3, T-39
C, D – T-34

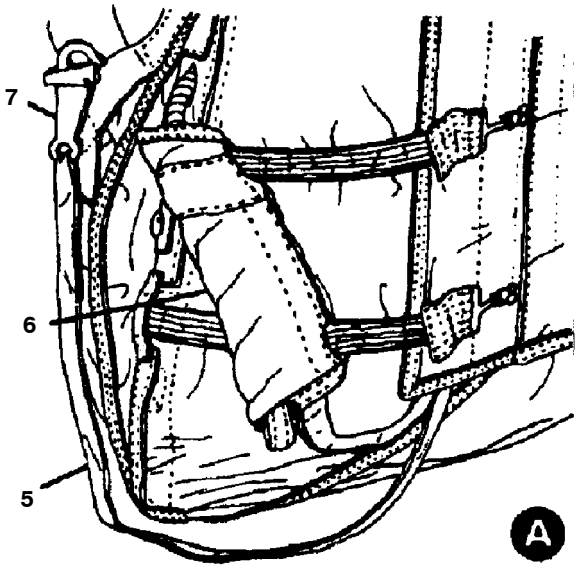
3. SERVICE/TOTAL LIFE.

a. The service/total life information is contained in WP 013 02.



-5, -6 ASSEMBLIES





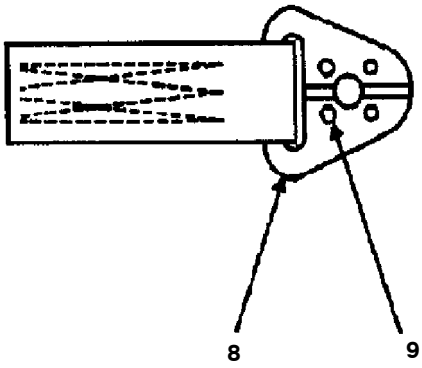


Figure 1. NB-8 Personnel Parachute Assembly (Sheet 1 of 6)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE	SM&R CODE
	569AS100-5	PARACHUTE ASSEMBLY, COMPLETE, NB-8	REF	A	AGOGG
	569AS100-6	PARACHUTE ASSEMBLY, COMPLETE, NB-8	REF	B	AGOGG
	569AS100-7	PARACHUTE ASSEMBLY, COMPLETE, NB-8	REF	C	AGOGG
	569AS100-8	PARACHUTE ASSEMBLY, COMPLETE, NB-8	REF	D	AGOGG
1	711-07025	. HOUSING, ARMING CABLE /52497/	1	C,D	PAGZZ
2	711-07026	. CABLE, ARMING /52497/	1	C,D	PAGZZ
3	2519704	. CARTRIDGE, DELAY, MK 5 MOD 2 (M284)	1	C,D	PCGZA
4	711-07022-34	. RELEASE, AUTOMATIC PARACHUTE ..... RIPCORD, MOD 7000 /52497/	1	C,D	PAGDD
	711-07022-30	. RELEASE, AUTOMATIC PARACHUTE ..... RIPCORD, MOD 7000 /52497/ (USE UNTIL EXHAUSTED)	1	C,D	PAGDD
5	813AS100-1	. LANYARD ASSEMBLY	1	C,D	PCGZZ
6	60A113P51-1	. STOWAGE POCKET, ARMING CABLE		C,D	PAGZZ
7	MS27756	. . SNAPHOOK, PARACHUTE LANYARD	1		PAGZZ
8	782AS100-4	. . PLATE	2	C,D	PAGZZ
9	MS20470DP2-3	. . RIVET, SOLID	4	C,D	PAGZZ
10	60A125E16-1	. PARACHUTE ASSEMBLY, PLOT ..... /SEE NOTE 2/	1		PCGGG
11	666AS100-1	. . STRAP, PILOT PARACHUTE CONNECTOR ..	1		PCGZZ
12	60A113E5-18	. CANOPY ASSEMBLY	1	*	PCGGG
	60A113E5-20	. CANOPY ASSEMBLY (WITH DOUBLE "L" .... CONNECTOR LINK INSTALLED)	1	*	PCGGG
13	MS22021-2	. . LINK, REMOVABLE CONNECTOR	4	*	PAGZZ
	MS22002-1	. . CONNECTOR LINK (DOUBLE "L")	4	*	PAGZZ
14	666AS101-2	. . LANYARD, FOUR LINE RELEASE	2		MGGZZ
14A	830AS100-1	. CHEST STRAP EXTENDER ..... (AS REQUIRED)	1		MGGZZ
15	60A113E3-14	. HARNESS ASSEMBLY, REGULAR	1	A,C	MGGZZ
	60A113E4-14	. HARNESS ASSEMBLY, OVERSIZE	1	B,D	PCGGG
16	676AS100-1	. . LABEL	1		MDGZZ
17	MS22017-1	. . SNAP, PARACHUTE HARNESS ..... EJECTOR	1	*	PAGZZ
	68D37721-3	. . SNAP, PARACHUTE HARNESS EJECTOR ...	1		PAGZZ
18	MS22018-1	. . SNAP, PARACHUTE HARNESS ..... QUICK FIT EJECTOR	2		PAGZZ
19	MS22020-1	. . LINK, PARACHUTE HARNESS ..... TRIANGLE	3		PAGZZ
20	60A113E3-2	. . KEEPER STAP SUBASSEMBLY	6		MGGZZ
21	60A113D9-1	. . POCKET ASSEMBLY	1		MCGZZ
22	MS70104-6	. . HOUSING, RIPCORD	1		PAGZZ
23	666AS102-5	. . FLUTE, FOUR LINE RELEASE LANYARD ..	2		MGGZZ
24	60A113D7-1	. RIPCORD ASSEMBLY	1		PAGZZ
25	60A113D6-1	. PAD ASSEMBLY, BACK	1		PAGGG
26	MS27983-1	. . FASTENER, BUTTON	6		PAGZZ
27	MS27983-2	. . FASTENER, SOCKET	1		PAGZZ
27A	60A113D50-1	. LUMBAR PAD	1	C,D	PAOZZ

Figure 1. NB-8 Personnel Parachute Assembly (Sheet 2 of 6)

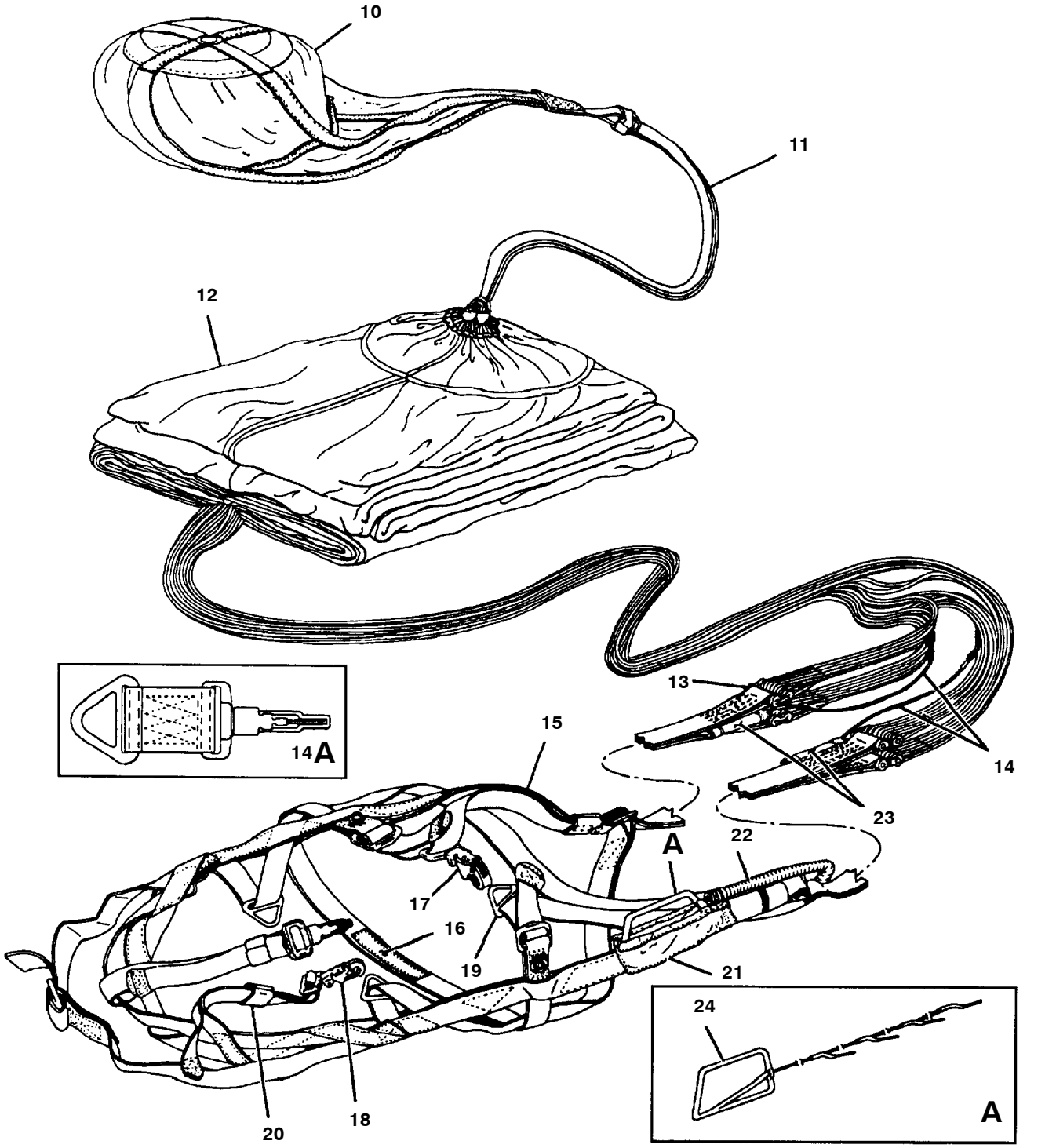


Figure 1. NB-8 Personnel Parachute Assembly (Sheet 3 of 6)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE	SM&R CODE
28	60A113E2-51	. CONTAINER ASSEMBLY	1		PCGGG
29	676AS100-1	. . LABEL	1		MDGZZ
30	MS27980-10B	. . FASTENER, EYELET	6		PAGZZ
31	MS27981-4B	. . FASTENER, STUD	3		PAGZZ
32	MS27981-5B	. . FASTENER, EYELET	3		PAGZZ
33	60A113C24-1	. . CONE, 0.410 GRIP	1		PAGZZ
34	60A113D16-1	. . BASE, ASSEMBLY, CLAMP	1		PAGZZ
35	60A113C15-1	. . COVER ASSEMBLY	1		PAGZZ
36	MS27981-5B	. . . FASTENER, EYELET	3		PAGZZ
37	MS27981-4B	. . . FASTENER, STUD	3		PAGZZ
38	MS27981-1B	. . . FASTENER, BUTTON	3		PAGZZ
39	MS27981-3B	. . . FASTENER, SOCKET	3		PAGZZ
40	60A113C29-1	. . CLAMP, SINGLE CABLE	1	A,B	PAGZZ
40A	565AS102-1	. . CLAMP, DOUBLE /SEE NOTE 1/	1	C,D	PAGZZ
41	MS51957-44	. . SCREW	2		PAGZZ
42	60A113C19-1	. . STRAP ASSEMBLY	8		XAZGG
43	MS27983-1	. . . FASTENER, BUTTON	1		PAGZZ
44	MS27983-2	. . . FASTENER, SOCKET	1		PAGZZ
45	646AS100-1	. . PANEL ASSEMBLY, CONE/GROMMET	1		XAZGG
46	60A113C28-1	. . . EYE	4		PAGZZ
47	60A113C31-1	. . . CONE, 0.338 GRIP	1		PAGZZ
48	60A113C25-1	. . WASHER, GROMMET	3		PAGZZ
49	60A113C28-1	. . EYE	8		PAGZZ
50	MS22048GC1	. . GROMMET	3		PAGZZ
51	MS27983-3	. . FASTENER, STUD	14		PAGZZ
52	MS27980-8B	. . FASTENER, EYELET	8		PAGZZ
53	814AS807-1	. . FASTENER, SLIDE	1		PAGZZ
54	60A113C31-1	. . CONE, 0.338 GRIP	1		PAGZZ
55	585AS100-1	. . LABEL, PARACHUTE ASSEMBLY	1		MDGZZ
56	MS22048C2	. . GROMMET AND WASHER, PARACHUTE PACK	4		PAGZZ
57	60A113D13-1	. . PANEL ASSEMBLY, GROMMET	1		XAZGG
58	MS27983-1	. . . FASTENER, BUTTON	5		PAGZZ
59	MS27983-2	. . . FASTENER, SOCKET	5		PAGZZ
60	MS27980-8B	. . . FASTENER, EYELET	5		PAGZZ
61	MS27983-3	. . . FASTENER, STUD	5		PAGZZ
62	60A113C28-1	. . . EYE	4		PAGZZ
63	60A113D14-1	. . POCKET ASSEMBLY, PARACHUTE ACTUATOR	1		XAZGG
64	MS27981-1B	. . . FASTENER, BUTTON	3		PAGZZ
65	MS27981-3B	. . . FASTENER, SOCKET	3		PAGZZ
66	60A113D11-3	. . SPRING ASSEMBLY, CONTAINER OPENING	8	*	PAOZZ
	MS70105-7	. . SPRING ASSEMBLY, CONTAINER OPENING	8	*	PAOZZ

Figure 1. NB-8 Personnel Parachute Assembly (Sheet 4 of 6)

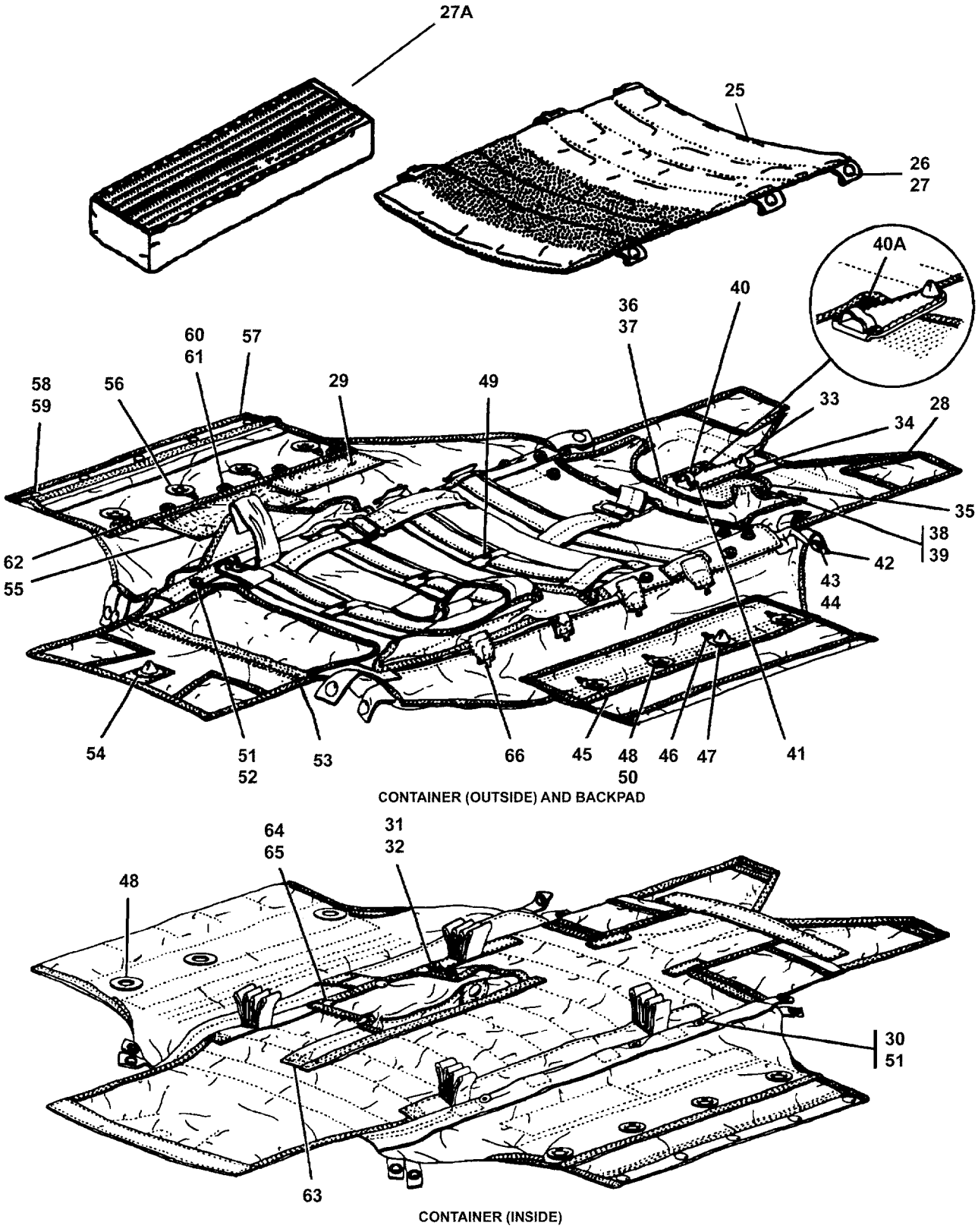


Figure 1. NB-8 Personnel Parachute Assembly (Sheet 5 of 6)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE	SM&R CODE

NOTES:
1. The double clamp P/N 565AS102-1 is packed with the container assembly and is used only when the automatic pararchute ripcord release is used; otherwise, the single clamp P/N 60A113C29-1 is used.
2. Either the 60A113E8-1 or the 60A125E16-1 pilot chute assembly may be used with the NB-8 parachute assembly, with the 60A125E16-1 being the replacement part for 60A113E8-1 when required.

Figure 1. NB-8 Personnel Parachute Assembly (Sheet 6 of 6)

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